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THE STATE OF SMALL BUSINESS:

A REPORT OF THE PRESIDENT

TRANSMITTED TO THE CONGRESS
1990

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THE STATE OF SMALL BUSINESS:

A REPORT OF THE PRESIDENT

TRANSMITTED TO THE CONGRESS
1990

Together with The Annual Report on
Small Business and Competition
of the U.S. Small Business Administration

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THE STATE OF SMALL BUSINESS

A REPORT OF THE PRESIDENT

1989 State of Small Business:
A Report of the President

To the Congress of the United States

I am pleased to submit my first annual report on the state of small business, which documents the progress of small firms in 1989. Over the record-breaking past almost 8 years of economic expansion, the economic environment for small business growth has been remarkable. Entrepreneurs have seized the opportunity to create millions of new enterprises, innovative products, and jobs.

In 1989, the number of business tax returns filed in the United States topped 20 million—an increase of more than 50 percent over a decade ago. Most of these businesses are very small ventures, but their importance cannot be overstated: by testing thousands of new ideas, products, and processes in the marketplace, they are inventing America's future.

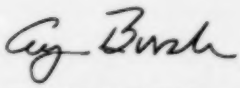
Small firms have had good earnings growth over the years of the expansion, and they continue to generate income for an increasing number of America's workers and entrepreneurs. Our economy experienced unemployment rates of only 5.3 percent in 1989, its lowest level since 1973. Small firms created a more than proportional share of new jobs relative to large businesses, as they have throughout the decade. Even when the pace of economic activity slowed, small firms often cushioned adverse effects on the labor force, laying off workers only as a last resort.

More women became small business owners during the 1980s than at any other time in America's history; the number of women proprietors almost doubled from 2.5 million in 1980 to 4.4 million in 1987. Minorities, too, started businesses in growing numbers during the 1980s. Women and minorities can be expected to continue making great strides in business ownership over the coming decade.

Small firms grew rapidly in the 1980s and contributed immeasurably to the diversity of the American economy. It was not easy. New companies often must struggle to enter competitive new markets with limited resources, vie with more established businesses for a trained labor force, and face increasing international competition.

While the 1980s were a decade of great achievement for America's entrepreneurial small businesses, the 1990s promise great opportunity and great challenge. We must invest in America—in human, intellectual, and physical capital. We must continue to find the means to educate and empower young people, new immigrants, women, minorities, and all who aspire to be entrepreneurs.

In a time of great economic opportunity around the world, we must equip ourselves, not only to meet new international competition, but to take the lead in a global economy. I am confident that, with the strength and spirit of American enterprise, we will be able to build an even stronger economy in the last decade of the 20th century.



THE WHITE HOUSE
October 22, 1990

THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION

THE
U.S. SMALL BUSINESS
ADMINISTRATION

Letter of Transmittal

Mr. President

The United States Small Business Administration herewith submits its 1990 Report on Small Business and Competition in accordance with the provisions of the Small Business Economic Policy Act of 1980. The Report was prepared by the Office of Advocacy of the U.S. Small Business Administration.

Sincerely,

Susan Engeleiter Mark S. Hayward

SUSAN S. ENGELEITER
Administrator

MARK S. HAYWARD
Acting Chief Counsel for Advocacy

U.S. Small Business Administration
Washington, DC 20416

Executive Summary

Growth continued in the U.S. economy at a favorable pace through most of 1989, benefiting millions of small firms. Real gross national product increased by 3 percent over the 1988 level. By the fourth quarter of 1989, however, real GNP growth had slowed to 1.1 percent.

Consumer spending, especially in the early part of the year, accounted for almost 60 percent of the growth in GNP, a stronger contribution than expected by most analysts. Part of the continued strength in consumption can be attributed to the continuing increase in personal income resulting from increases in wages and continued growth in employment. With small businesses clustered in the wholesale, retail, and related distribution industries, this sustained rise in consumer spending aided small business performance in 1989.

Exports accounted for about 19 percent of the growth in GNP. Small businesses, which contribute about 20 percent of total U.S. exports, were among the firms benefiting from the higher increases in exports. For the year, the relative strength of exports, up 11.1 percent, compared to a 6.1-percent increase in imports, contributed to both GNP growth and a decline in the foreign trade deficit.

Expenditures for housing, business plants and equipment, business inventories, and other private investment accounted for only 4.1 percent of the 1989 GNP growth in contrast to 24.5 percent in 1988. Small home construction firms and special trade contractors were among the small firms to feel the effects of this slowdown.

Increases in goods and services purchased by government from the private sector accounted for 17.8 percent of the growth in GNP. Small businesses benefited less from the increase in this sector of the economy, because they received relatively fewer federal contract dollars than their larger counterparts.

Small Business in the Economy

As gauged by the SBA's Small Business Health Index, the small business sector fared better overall in 1989 than it did in 1988. The index, which combines information about business incorporations, business failures, and

employment changes, increased rapidly early in 1989 because of higher than average growth in new incorporations. It declined in the last three quarters because of slowing growth in new incorporations and employment, and increases in business failures. Its average value for the year remained higher than in 1988 because of much higher than average values in the first two quarters. At year end, however, the index was below its year-end 1988 level.

Growth in the Number of Small Businesses

In 1989, an estimated 20 million business tax returns were filed with the Internal Revenue Service, an increase of 5 percent from 1988 and more than 50 percent from the 13 million recorded in 1980. Returns were filed by 13.8 million nonfarm sole proprietorships, over 1.9 million partnerships, and 4.3 million corporations. Fewer than 7,000 of the businesses represented by these tax returns are large businesses with more than 500 employees.

New businesses continued to form; over 677,000 incorporations were recorded in 1989, slightly fewer than in 1988. This level of business formation is still remarkably high for an expansion in its seventh year. Another indicator of business formation, based on data from state employment services, also projected a somewhat lower rate of business formation than in 1988.

Business failures and bankruptcies continued to decline in 1989. Business failures were down 12.9 percent, and bankruptcies were down 0.6 percent. Another measure of business terminations—broader than the failure and bankruptcy series in that it also includes businesses closed for voluntary reasons—showed an increase in 1989.

The business failure and bankruptcy numbers indicate that business conditions worsened in 1989 for states in the northeastern part of the country, but improved in the southwestern United States, the farm states, and the mountain states. Business conditions were generally better on the west coast than on the eastern seaboard during this period.

Small Business Employment Growth

The economy continued to create new jobs throughout 1989. Nonfarm payroll employment rose 2.474 million jobs from December 1988 to December 1989, with the strongest gains in sectors dominated by small businesses. Employment in private industries dominated by small firms increased 3.2 percent between December 1988 and December 1989, while in large business-dominated

industries, employment rose just 1.4 percent over the year. Moreover, small-business-dominated subsectors within the services and transportation industries continued to exhibit higher employment growth than their large-business-dominated counterparts. Within manufacturing, a sector composed primarily of large businesses, the subsectors dominated by small firms generated approximately 15,000 jobs, while those dominated by large firms lost 80,000.

On the other hand, in retail trade, traditionally a small-business-dominated sector, large-business-dominated industries such as grocery stores have accounted for most of the growth. Small-business-dominated retail industries that demonstrated significant employment gains included eating and drinking places, miscellaneous shopping goods, and auto and home supply stores.

Over half of the total growth in small-business-dominated industries came from the service industries, where employment rose by 5.4 percent. Rapidly growing industries in this sector include outpatient care facilities, medical and dental laboratories, and mailing, reproduction, and stenographic services. In fact, seven of the ten small-business-dominated industries generating the most new jobs were in the service sector.

Productivity in Small Firms

Because small businesses are typically more labor-intensive than their large business counterparts, small business profits are more closely tied to labor productivity. Productivity, as measured by output per employee hour, has been calculated for 24 industries dominated by small firms.

Among the small-business-dominated industries with the greatest average increases in productivity between 1972 and 1988 were several retail trade industries, including radio, television, and music stores, household appliance stores, and women's ready-to-wear stores. The advent of computerized cash registers and improved access to computerized accounting and inventory management have helped increase the productivity of workers in these industries.

Small Business Earnings

Small business earnings—earnings of sole proprietorships and partnerships—increased 6.2 percent in 1989. Corporate profits, including the profits of small corporations, declined by 8.3 percent during the year.

Small businesses have had good earnings or profit growth during most of the seven years of the current expansion. Given factors such as a slowing economy and

rising wholesale prices, it is not surprising that the increase in proprietorship earnings was the lowest since 1982. Nonetheless, for most small businesses, 1989 was a positive year, with both sales and nominal profits increasing.

Availability of Financing

The U.S. economy continued to grow during 1989, but the pace of the record-breaking expansion that began late in 1982 slowed in the second half of the year. Major developments in the financial markets in 1989 included a somewhat bullish stock market until October, and the collapse of the "junk bond" markets in August. At year's end, small business optimism about the economy remained subdued, but the financing environment faced by small firms improved even as the economy slowed.

Short-term and long-term loan rates paid by small businesses declined beginning in May, after rising steadily starting in May 1988. Borrowing by nonfarm, nonfinancial corporations remained strong throughout the year, but borrowing by sole proprietorships and partnerships continued at the slower pace established in 1988. Slower economic growth, rising net income, and a fall-off in fixed capital expenditures were among the reasons for the lower demand.

At the same time, commercial and industrial lending by small banks, an indication of commercial loans to small businesses, increased at faster rates in early 1989, then slowed as the economy slowed. Business loans by finance companies, which are largely asset-based, increased in line with increased capital expenditures by corporate businesses. Borrowing in the public equity markets and from venture capital companies both abated somewhat in 1989.

Worker Characteristics

Independent small businesses, which employ more than half of the nation's private sector work force, have made important contributions to the creation and retention of jobs in the economy during both expansions and recessions. Research on changes in employment by business size during a recessionary period, 1979–1983, and an expansionary period, 1983–1988, helps illuminate this phenomenon, as well as providing useful observations about general changes in the small- and large-firm work forces. For example:

- During both periods, small businesses were the major employers of younger, older, and female workers. The percentage of the work force that is female

during both periods, although more slowly during the increased second period.

- During recessionary periods, small businesses are more likely than large businesses to have a cushioning effect by reducing the decline in employment. Job losses among younger workers were lower in small firms during the 1979–1983 period, for example.
- The patterns of employment in small and large firms vary among ethnic groups. Black workers are more likely to be employed in large businesses, while Hispanic workers more often work in small firms.
- The average educational level of workers has increased: jobholders who completed at least four years of college made up 20.9 percent of the work force in 1988, up from 20 percent in 1983 and 16 percent in 1979.

The SBA research, based on data from the 1979, 1983, and 1988 Current Population Surveys conducted by the Bureau of the Census, also examines economic characteristics of large- and small-firm workers, such as coverage by union contracts, part-time or full-time status, previous self-employment, job mobility, and movement from unemployment into employment. For example, job mobility declined across all firm sizes during the recessionary period, but then increased between 1983 and 1988 as the economy expanded.

Health Insurance Coverage in Small Firms

Small firms are at the center of the debate on how to provide health care for America's uninsured: about three-fourths of uninsured private wage-and-salary workers are in small firms. While health insurance costs have been escalating dramatically in all firms, the costs have been significantly higher in small firms.

The disparity is likely to grow worse before it improves: changes in the labor force over the coming years are expected to increase the proportions of older workers, immigrants, and women in the work force. These workers are more often employed by small firms, and some of these groups may be especially difficult to insure.

New data on health coverage in small firms indicate that small firms still employ a disproportionately large share of workers without employer-provided health insurance. While 66.8 percent of all workers were covered by employer-provided insurance in 1988, only 39.2 percent of workers in firms with fewer than 25 workers were cov-

ered. The good news is that the small firm percentage has increased slightly, up from 36.9 percent in 1979.

Retirement Plans in Small Firms

Employee benefits, including retirement benefits, are a vital part of the package small firms offer to hire and retain productive workers. The nationwide benefits survey that provided information on small firm health coverage also permits analysis of changes in pension coverage by firm size over the 1979–1988 period.

After declining between 1979 and 1983, the proportion of workers employed by firms offering an employer- or union-sponsored pension plan increased slightly between 1983 and 1988, from 56.4 percent to 57.6 percent. However, the percentage of workers actually covered declined across all firm sizes, from 48.3 percent in 1979, to 45.6 percent in 1983, to 43.2 percent in 1988.

Retirement plan coverage increases with firm size. In 1988, pension coverage ranged from 12 percent in small firms with fewer than 25 employees to over 60 percent in larger firms with 100 or more employees. The disparity is partially related to the characteristics of workers in small and large firms: small firms employ more younger workers, immigrants, women, highly mobile workers, and part-time workers, many of whom are less likely to opt for retirement benefits or to have been employed long enough to be eligible. Differences in small and large firm pension coverage are also related to the profit stability of the firms and the costs of providing such coverage. In short, smaller firms often find it too costly to provide pension coverage in the small business environment of unstable earnings.

Small Firms and Mandated Leave Policies

Debate continues on whether firms should be required to offer unpaid leave to employees for pregnancy and childbirth, and if so, how much, and under what conditions. As with health care and retirement benefits, leave policies vary by firm size, with fewer small firms offering any kind of paid disability leave.

Nevertheless, preliminary research results show that more than 90 percent of firms with more than 15 employees and almost 80 percent of firms with fewer than 15 employees offer some kind of disability leave. Two-thirds of firms with more than 15 employees and 40 percent of the smallest firms provide maternity leave with a job guarantee.

One important issue in the leave debate concerns how firms handle the work of leave-takers. Small firms are

more likely to reroute urgent work to other employees and hold less pressing work until the leave-taker returns; they are significantly less likely to use the more costly alternative of hiring temporary replacements.

For a variety of reasons related to the nature of small business and the small business work force, the tax code, and the policies of providers, small employers find it more difficult and more costly to offer health, retirement, and leave benefits to their workers. In general, preliminary research indicates that mandating employer provision of these benefits will have a proportionally larger effect on the nation's small businesses.

Women's Business Ownership

Women made significant progress in business ownership and business receipts over the 1977–1987 period, according to recent research. The increase in businesses owned by women during the 1980s was startling: in 1977, the number of nonfarm sole proprietorships owned by men exceeded the number owned by women by a margin of 3.3 to 1; by 1987, the margin had decreased to 2.1 to 1. Women-owned nonfarm sole proprietorships more than doubled over the decade, from 1.9 million in 1977 to over 4.4 million in 1987.

Total receipts of these women-owned firms also increased rapidly from 1977 to 1987, at an annual rate of 8.4 percent, compared to an annual decrease of 0.2 percent in receipts of nonfarm sole proprietorships owned by men. Receipts per proprietorship declined for both men and women over the decade, but women appeared to be narrowing the sales gap.

Women have also moved into the labor force in great numbers over the past 25 years. From 1963 to 1988, women's civilian labor force participation rate was up 18.3 percentage points, to 56.6 percent, while men's labor force participation decreased 5.2 percentage points to 76.2 percent. The proportion of women with young children who are entering the labor market has also increased, from 43.7 percent in 1978 to 56.1 percent in 1988.

Procurement from Small Firms

Total federal procurement of goods and services from outside sources has been declining since 1985, and small business' share of awards has also declined since 1986. Minority- and women-owned firms, on the other hand, have experienced healthy growth in the dollar volume of federal contract awards.

Small firms continued to increase their share of contracts for construction work and services during 1988. In

dollar value, however, the largest single source of awards to small firms remained contracts for supplies and equipment. Research and development remained the least likely area for small firms to win awards; they were awarded only 6.8 percent of such contracts over $25,000 in FY 1988; still, that percentage was the second largest for small firms in the past seven years.

Small firms continue to be an important performer of federal contracts and were major contributors to the cost savings exhibited in a review of several hundred contracts performed by nongovernment sources over a three-year period.

Conclusion

Small businesses continue to make important contributions to the economy, generating innovations, employment, and income in times of both economic expansion and contraction. Even as the pace of growth in the economy slowed in 1989, small businesses continued to create new jobs at a faster rate than their larger counterparts. Small firms help create diversity and flexibility in the American economy. The very nature of small firms and of the flexible work forces they employ means that they frequently face higher costs and more administrative barriers to providing their employees the health, retirement, and leave benefits readily available in larger firms. Despite this, they benefit society by providing sources of employment and development for minorities and women integrating themselves into America's business sector, and by serving as vehicles for innovation and change in the nation's growing economy.

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1989

The State of Small Business

Synopsis

Growth in the U.S. economy continued at a favorable pace through most of 1989, benefiting millions of small firms. Real gross national product increased in 1989 by 3.0 percent over the 1988 level. By the fourth quarter, however, real GNP growth had slowed to 1.1 percent.

As gauged by the SBA's Small Business Health Index, small firms fared better during the first half of 1989 than in 1988, but did less well in the latter half of the year. Nonetheless, the index indicates that the U.S. economy has provided a stable and favorable environment for small businesses over the past several years.

An estimated 20 million business tax returns were filed in 1989, representing more than 4 million corporations, 2 million partnerships, and almost 14 million nonfarm sole proprietorships. This represents an increase of 5 percent from 1988 to 1989 and is more than 50 percent greater than the 13 million nonfarm tax returns filed in 1980.

Business incorporations decreased slightly in 1989 from the 1988 rate. Data generated by state employment services on new businesses with employees show business formation at slightly higher levels than in 1988.

Two measures of business closure continued a downward trend established in 1988. Business bankruptcies decreased 0.6 percent and business failures were down 12.9 percent for the first three quarters over the comparable period in 1988. Information from state employment services shows a slight increase in total business closings, including voluntary closings, in 1989.

Employment in the economy continued to rise throughout the year. Industries dominated by small firms continued to create jobs at a faster pace—3.2 percent—than industries dominated by large firms, at 1.4 percent. The fastest growing small-business-dominated industries were in medical services: outpatient care facilities and medical and dental laboratories.

Nonfarm sole proprietorship earnings increased by only 6.2 percent during the year, the slowest rate of growth since 1982. With adjustments for inflation and for the increase in businesses filing tax returns, real earnings per proprietor dropped in 1989. Overall corporate profits declined by 8.3 percent in the same period.

Newly available Census data and Small Business Administration survey research have enabled the SBA's Office of Advocacy to compare various small and large firm attributes, including changes in characteristics of the work force during various phases of the busi-

ness cycle, health care and pension availability and coverage, and the availability of parental and medical leave. Brief summaries of the research are reported in the following sections.

Introduction: The Economic Environment of Small Business

Although the pace of economic activity moderated from the rapid pace of previous years, small businesses had another good year in 1989. Real GNP rose 3 percent for the year, somewhat less than its growth of 4.4 percent in 1988 and 3.7 percent in 1987.[1] Nonetheless, continued spending by consumers benefited many small businesses, particularly in the service industries. And while consumer spending fell off in the last quarter of the year, most small businesses posted higher nominal sales and profits for the year as a whole.

Nonfarm payroll employment grew 2.3 percent or by 2.474 million jobs during the year and the unemployment rate averaged 5.3 percent, its lowest level since 1973. The rate of employment growth in the economy slowed from the 1988 rate, but employment in small-business-dominated industries grew faster—by 3.2 percent—than employment in large-business-dominated industries, which grew by only 1.4 percent during the year.[2]

The slowdown of real GNP growth to 1.1 percent in the fourth quarter confirmed numerous signals of slowing growth noted in earlier quarters. Manufacturing capacity utilization peaked in June, for example, and fell in four of the five following months. Industrial production peaked in August and fell off in September and October, before leveling off in November. For the year, industrial produc-

[1]The GNP figures used here are not drought-adjusted. Excluding the effects of the drought, GNP growth for 1989 has been calculated at 1.9 percent (preliminary figures). See *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, February 1990), 33.

[2]U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (February 1990), Table B2, December 1988 to December 1989 data. Small-business-dominated industries are industries in which 60 percent or more of employment is in forms with fewer than 500 employees. Large-business-dominated industries are industries that have 60 percent or more of employment in firms with more than 500 employees. A third set of industries, in which 40.1 to 59.9 percent of employment falls in either the large- or small-business-dominated category, constitutes an indeterminate group, where dominance is unclear. This indeterminate group of industries expanded employment at a rate of 2.4 percent from December 1988 to December 1989.

tion increased only 1.7 percent, well below its 5.7-percent pace in 1988 or the 3.8-percent rise experienced in 1987. Despite the slower growth in industrial production, export performance remained strong throughout the year.

Sources of GNP Growth in 1989

Small businesses have traditionally been clustered in the retail trade and service industries, in businesses which focused on consumer markets and on the ability of the small business owner to provide desirable goods and services to the consumer. When consumers increase their spending, small businesses generally prosper.[3]

In 1989, real consumer expenditures rose 2.7 percent after a 3.4-percent rise in 1988. Real spending on new autos fell off somewhat last year, but purchases of other durable goods, nondurables, and spending on services were generally well maintained.

Spending rates last year apparently were relatively unhindered by high short-term interest rates, increases in credit card interest charges, and the high level of household debt incurred before 1989. Part of the continued strength in consumer spending can probably be attributed to the continuing increase in personal income, which rose because of increases in wages and continued growth in employment.

The steady consumer spending provided an underpinning for the growth of real GNP and benefited many small firms during the year.[4] Increases in consumption spending

---

[3]Large businesses may also do well when consumers increase their spending. For example, according to the Bureau of the Census, between December 1988 and December 1989, retail sales in firms with more than 11 establishments (large businesses) increased by 7.6 percent, compared to a sales increase of 1 percent in firms with 11 or fewer establishments (small businesses). The good performance of larger retailers reflects a trend that accelerated during the 1980s. Larger retailers in a number of retail industries are exploiting economies related to financing, advertising, inventory control, and information processing to improve their relative position.

[4]While consumer spending generates income for small business, small business productivity is directly related to the investment decisions of small business owners and the savings behavior of everyone in the economy. The fact that greater consumer spending means more profits for smaller retailers should not be construed as an argument for more spending at the expense of consumer savings. An inadequate flow of savings will constrain the investment small businesses must make in order to increase worker productivity and remain competitive.

accounted for 59.5 percent of the growth in real GNP in 1989, more or less in line with the normal two-thirds share of consumption spending in the economy (Chart 1).

Gross private domestic investment accounted for only 4.1 percent of real GNP change in 1989. Residential fixed investment (investment in new or improved housing) declined in each of the first three quarters (Chart 2). This decline, accompanied by slow growth in business spending for new plant and equipment and a decline in the growth of business inventories in the second quarter, minimized the effect of gross private domestic investment on GNP growth.

Small home construction firms and small special trade contractors (plumbers, electricians, roofers, heating and ventilation contractors, tile setters, etc.) were negatively affected by the decline in residential fixed investment. Some of these contractors were also hurt by the slowdown in business expenditures for new commercial buildings. Home sales and home construction were hindered by higher mortgage interest rates during the first part of the year, but declining interest rates during the second half of the year kept the situation from deteriorating further.

Net exports also contributed to growth in GNP, accounting for 18.6 percent of the GNP increase (Chart 1). The relative strength of exports, up 11.1 percent compared to a 6.1-percent increase in imports, contributed to both GNP growth and a decline in the foreign trade deficit.

Small businesses contribute about 20 percent of total U.S. exports; in addition, smaller manufacturers are suppliers to larger industrial companies, which are important exporters.[5] The continuing growth in exports throughout the year probably contributed to the continuing employment, sales, and profit growth of many smaller manufacturing firms.

Because net exports and gross private domestic investment are dominated by large business sales, growth in these sectors benefits small businesses more indirectly, through large business demand for small business outputs. With relatively high capacity utilization rates in

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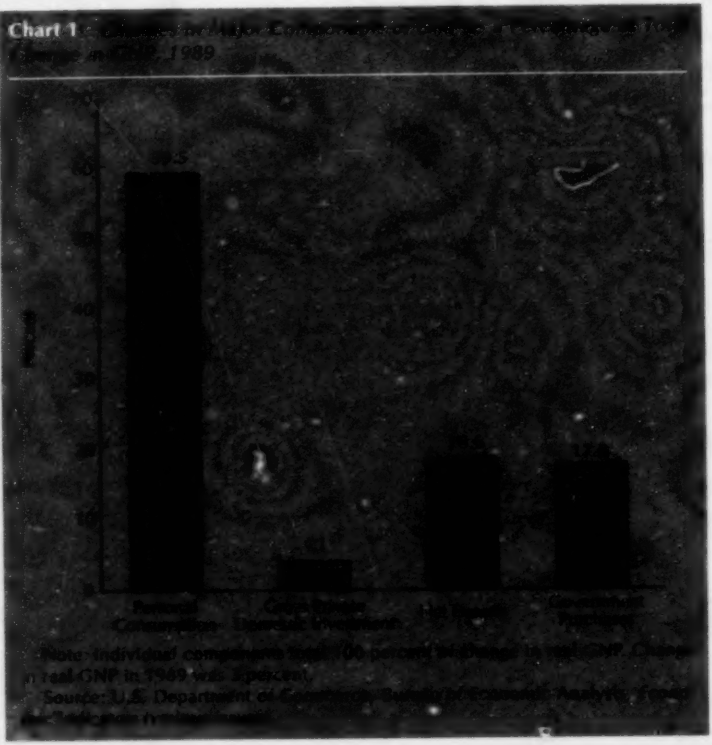
[5]See Jack Faucett, *Small Business Exports of Manufactured Products, 1985*, report no. PB89 178719, prepared by Jack Faucett Associates, Inc., for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1988).

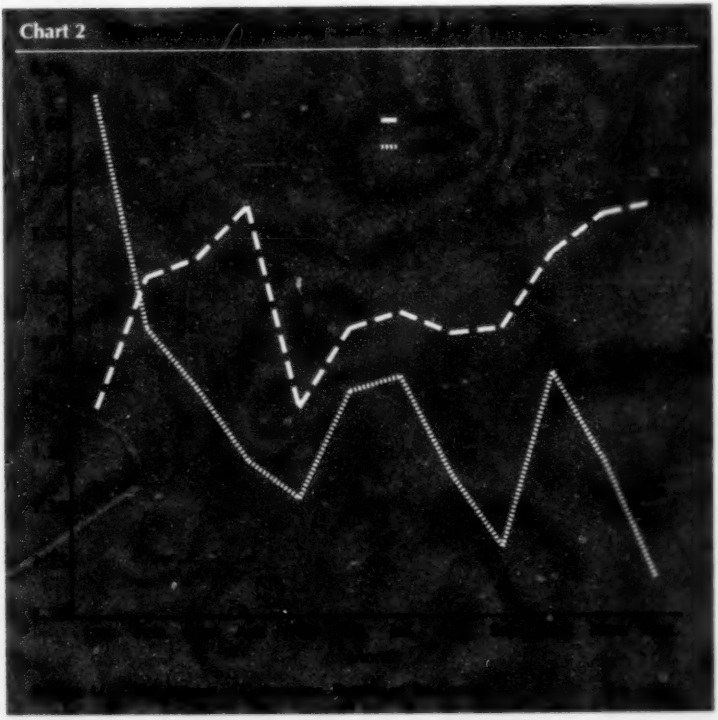


many export and capital goods industries in 1989, small manufacturing businesses probably received additional contracts from large businesses.[6]

Increases in goods and services purchased by government from the private sector accounted for an additional 17.8 percent of the total increase in GNP. Most of the

[6]The hypothesis of increased outsourcing by larger businesses is consistent with the increased employment in a number of small-business-dominated manufacturing industries that supply larger businesses. For example, employment in commercial printing, metalworking machinery, and miscellaneous fabricated textile products, all small-business-dominated industries, increased by 13,800, 8,600, and 8,300 workers, respectively, between December 1988 and December 1989.

Chart 2

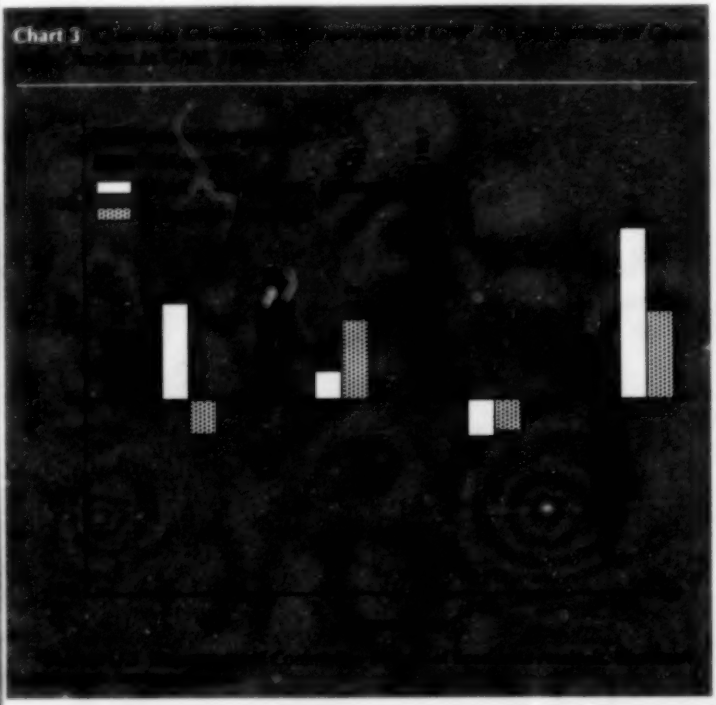


fluctuation in total government expenditures for goods and services came from federal spending, which varied significantly from quarter to quarter, while state and local governments increased purchases more steadily throughout the year (Chart 3).

Small businesses generally receive a less than proportional share of federal expenditures for goods and services compared to small business' share of sales to private buyers.[7] Increases in federal expenditures are probably

[7]See Jack Faucett, Jonathan Skolnick, and Harry J. Chemelynski, *Procurement Share vs. Industry Share*, report no. PB87 209557, prepared by Jack Faucett Associates, Inc., for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1986).

Chart 3

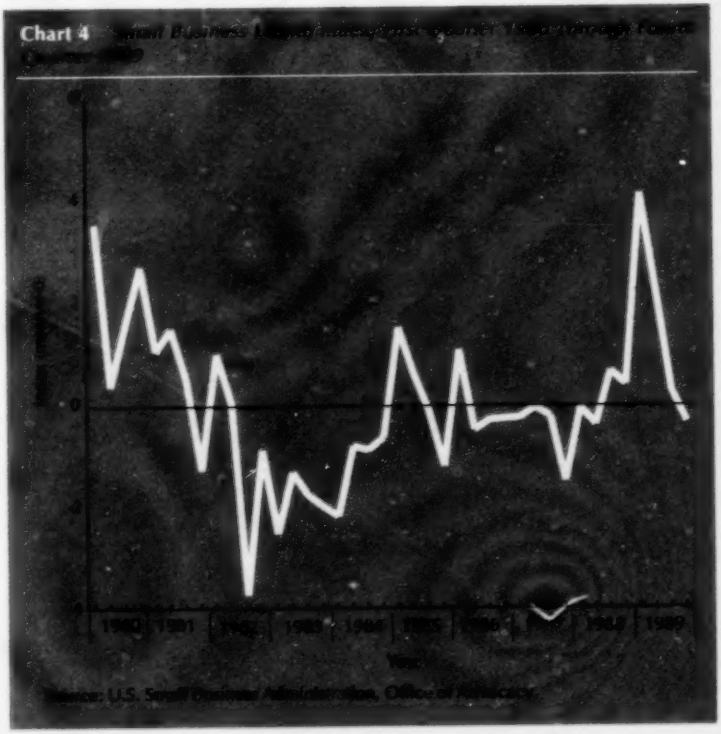


less important, therefore, to small businesses than increases in personal consumption expenditures, residential fixed investment, or exports.

The Small Business Health Index

The SBA's Small Business Health Index (SBHI) combines information about new incorporations, business failures, and employment changes in small-business-dominated industries in a measure of the current state of small business.[8] As gauged by the index, the small business sector

[8]The SBHI represents an attempt to summarize—in a single measure—the relationship between small business profits and a set of timely economic indicators of special relevance to the small business sector. It is a weighted average of three data series: new incorporations, business failures, and employment in small-business-dominated indus-



fared better overall in 1989 than in the preceding year (Chart 4). Although the index showed a decline beginning in the second quarter of 1989, its average value for the period was much higher than in 1988 because of the

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tries. Data on business failures and new incorporations are obtained from Dun and Bradstreet monthly press releases. Data on employment change in small-business-dominated industries are derived from *Employment and Earnings* data published by the Bureau of Labor Statistics, U.S. Department of Labor. Each series is weighted according to its historical statistical relationship to movements in nonfarm proprietorship income. Faster than normal growth in new incorporations and/or employment in small-business-dominated industries cause the SBHI to rise, while increases in business failures tend to depress the index.

much higher than average values during the first two quarters.[9]

The sharp upturn in the SBHI that occurred in the first quarter of 1989 is principally attributable to a 9.9-percent increase in new incorporations from the previous quarter. The second-, third-, and fourth-quarter declines reflect increasingly sluggish growth in the number of new business incorporations and small business sector employment. The influence on the index of the slowing growth in these two series was moderated slightly by below average growth in the number of business failures. At the close of 1989, the index was slightly below its decade-long average.

Employment in small-business-dominated industries is the most heavily weighted of the three data series used to derive the SBHI. However, small-business-dominated industry employment is the least volatile of these series on a quarter-to-quarter basis. As a result, the quarterly fluctuations in the index are driven largely by fluctuations in new incorporations and business failures.

This is clearly underscored by the similarity between the movements over time of the SBHI and those of the Index of Net Business Formation (Chart 5).[10] Both series reached a high value for the first quarter of 1980, exhibited a low in the third quarter of 1982, and were fairly stationary between 1985 and 1988.

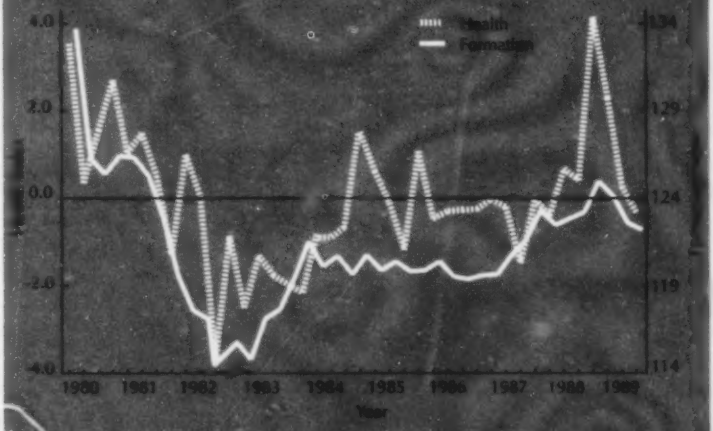
The Number of Small Businesses

How many small businesses were there in the United States in 1989? For several reasons, there are numerous answers to the question of how many small businesses exist. First, there is no standard size definition of a small

[9]The SBHI, by definition, assumes an average value of zero over time. The actual values of the index do not have a specific interpretation. However, positive values imply that nonfarm proprietorship income is estimated to be growing at a faster than average rate, and the higher the index value is, the higher the estimated growth rate of nonfarm proprietorship income is.

[10]The Index of Net Business Formation produced by the Department of Commerce, Bureau of Economic Analysis (BEA), is a consolidated measure of business formation and failure. BEA's index is based on Dun and Bradstreet's monthly new incorporations and business failure data, as well as net monthly additions to business telephone listings.

Chart 5 *Small Business Health Index and Index of Net Business Formation, First Quarter 1980 Through Fourth Quarter 1989*



Sources: For Small Business Health Index: U.S. Small Business Administration, Office of Advocacy; for Index of Net Business Formation: U.S. Department of Commerce, Bureau of Economic Analysis.

business. The size of a business may be measured in terms of employment, assets, or receipts.[11]

The appropriate definition of small business may depend on the policy issue or question being analyzed, or the industry being studied. Small businesses may appropriately be defined as those having fewer than 100 employees in a discussion of retail stores, because most retail establishments have few employees and most retail

[11]Depending on the industry or issue being studied, definitions of small business may vary from those having fewer than 100 employees to those having fewer than 500 employees. A more detailed employment breakdown also used is as follows: under 20 employees, very small; 20–99, small; 100–499, medium-sized; and over 500, large. These size breaks are consistent with standard business employment, asset, and receipt size classes established on May 18, 1982, by the Office of Management and Budget to be used by all federal agencies when publishing business data.

firms (enterprises) have few establishments.[12] The average entity in the industry, whether establishment or enterprise, is small, and that smallness is captured within the under-100-employees size limit. In some industries, such as automobile manufacturing, the typical establishment may be much larger than 100 employees, and a definition of small businesses as those having fewer than 500 employees accurately captures the fact that a firm with 300 or 400 employees may be small relative to the industry average.

Once agreement is reached on an upper boundary for the size of small businesses, the question of a lower boundary becomes an issue. Many people implicitly define a business as an organization having one or more employees. But most businesses have no employees other than the owner (who may or may not be counted as an employee, depending on the federal agency which does the counting), and many business owners work only part-time at their business.[13] The definitional issues concerning these business owners are even more confused when they are identified as "self-employed," referring to

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[12]One source of confusion about the number of businesses stems from the failure to distinguish between enterprises (firms, businesses) and establishments (branches, places of business). An establishment is defined as any single physical location where business is conducted. An enterprise is a business organization consisting of one or more establishments under the same ownership or control. Most small businesses consist of a single establishment. However, a large firm may own many small establishments; these establishments should not be confused with small firms. Data on the number of establishments, related employment, and payrolls, are published annually by county (and by state and industry) in *County Business Patterns*, a publication of the Bureau of the Census.

[13]There is no definitive way to estimate the number of small businesses without employees. One way to approximate the number of small businesses with no employees is to look at the number of business tax returns for nonfarm sole proprietorships with less than $10,000 in receipts. In 1986, over 51 percent or about 6.3 million nonfarm sole proprietorships were in this category. *Statistics of Income Bulletin*, U.S. Department of the Treasury, Internal Revenue Service (Winter 1988-1989), 116. According to an analysis of Census' Survey of Income and Program Participation, 9 out of 10 sole proprietorships in 1983 had no employees besides the owner. See Sheldon E. Haber, Enrique J. Lamas, and Jules H. Lichtenstein, "On Their Own: The Self-Employed and Others in Private Business," *Monthly Labor Review* (May 1987), 21.

their employment status rather than their business or legal status.[14]

Statistics published by the Internal Revenue Service provide the broadest measure of nonfarm businesses in the United States. An estimated 20.1 million business tax returns were filed in 1989 (Table 1). Returns were filed by 4.3 million corporations, over 1.9 million partnerships, and 13.8 million sole proprietorships. Many of these firms are very small: fewer than 7,000 would qualify as large businesses if an employment cutoff of 500 employees is used to define small and medium-sized businesses.[15] These figures are evidence of the broad scope and continuing strength of small business activity in the United States: half again as many business tax returns were filed in 1989 as in 1980, just 10 years ago.

Other agencies also produce counts of the number of businesses. Every five years, the Bureau of the Census publishes *Enterprise Statistics*, based on information collected in years ending with a 2 or a 7. The next scheduled publication (of 1987 data) will be in 1991.[16]

The Small Business Data Base maintained by the SBA publishes biennial information on changes in the number of business establishments and business enterprises.[17] The number of businesses added to the economy each year is the net result of new business starts offset by losses (dis-

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[14]For an extended discussion of self-employment as a small business phenomenon, see "Self-Employment as Small Business," *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1986), 105–149.

[15]See also Table A.2 for a breakdown of income tax returns by the receipts size of the business. The most recent year for which data are available is 1986.

[16]For *Enterprise Statistics* data on the size distribution of businesses for 1982, see *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1987), 15, Table 1.10.

[17]The 1988 data are expected to be released in mid-1990. For further information, see U.S. Small Business Administration, Office of Advocacy, *Handbook of Small Business Data* (Washington, D.C.: U.S. Government Printing Office, 1988).

Table 1 Nonfarm Business Tax Returns, 1980–1989 (Thousands)

Year	Corporations (Forms 1120 and 1120S)	Partnerships (Form 1065)	Proprietorships (Schedule C)	Total
1989E	4,270	1,950	13,839	20,059
1988	4,027	1,828	13,126	18,979
1987	3,829	1,824	12,633	18,286
1986	3,577	1,807	12,115	17,499
1985	3,437	1,755	11,767	16,959
1984	3,167	1,676	11,327	16,170
1983	3,078	1,613	10,507	15,198
1982	2,913	1,553	9,877	14,343
1981	2,813	1,458	9,345	13,616
1980	2,676	1,402	8,944	13,022

E = Estimated.
Source: U.S. Department of the Treasury, Internal Revenue Service, SOI Bulletin, Table 19. Tabulated from Research Division of the IRS.

solutions) of existing businesses.[18] No complete listing of new startups or of business closures is available. Several published series on starts, incorporations, failures, and bankruptcies are used as proxies for births and deaths of businesses.

Business Formation in 1989

Two indicators of business formation that can be compared to earlier measurements are available: new incorporations and new firms with employees.[19] The number of new incorporations in 1989 was 677,394, a drop of 1.1 percent from the 685,095 incorporations registered

[18]The counts of businesses described here exclude separate explicit counts of the number of franchises. These are not precisely measured in the Small Business Data Base, which underrepresents them. While most franchises are independent small businesses, some companies choose to retain ownership of their franchises; such franchises would be counted as part of the larger owning company in the Small Business Data Base and in most other federal sources. One business list which attempts to comprehensively identify franchises is the Standard Statistical Establishment List of the Bureau of the Census; however, the use of this list is legally restricted to Census officials.

[19]In prior years, data were shown for new business starts; however, that series has been discontinued by the Dun and Bradstreet Corporation.

in 1988 (Table 2). For the same period, new firms with employees increased by 898,000, a slight increase from the 1988 period.

The decision to start a new business is not registered with any single agency or level of government. Data on incorporations are obtained from the secretaries of state for each of the 50 states and the District of Columbia, and are published regularly by the Dun and Bradstreet Corporation. Corporations represent about 15 percent of all businesses, but account for approximately 80 percent of business revenues. An incorporation may reflect the actual startup of a new business, the intent to start a business, a change in the location of a business, or the conversion of a proprietorship or partnership to a corporation.

A data series newly available to the Small Business Administration shows the number of firms with employees reporting employment to state employment services.[20] In preparing the quarterly report for the Employment and Training Administration, the states identify both new firms, that is, firms added to the file, and successor firms, that is, existing firms purchased by new owners.[21] The sum of new and successor firms represents the total number of firms with new management (Table 3).[22] The state employment services also report the number of firms that ceased to report employment or indicated that they were no longer in business.

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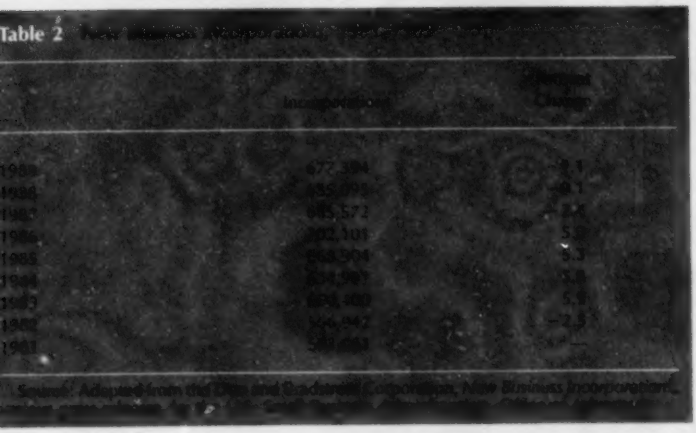
[20]See note for Table 3.

[21]Note that the data described here refer not to firms, but to "firms reporting within states." A large firm with establishments in each of the 50 states would report as a firm in each state. If this large business were to close its doors, each of the states would declare the loss of one firm, for a total loss of 50 firms. Clearly, this type of counting will overcount the number of businesses, since every business operating in more than one state will be counted more than once. The errors introduced by this method of counting are not large, however, relative to the large number of businesses that operate only within a single state. The overcounting also has minimal impact on the new business and business closing categories. New businesses are almost always small businesses operating in only one location. The larger the business, generally speaking, the less the probability that the firm will close down in any time period. Therefore, most closings will be small business closings, and counts should be relatively accurate.

[22]These "new" firms are not new in the sense that they were started during the calendar year in question. They are new only in the sense that they are for the first time reporting employment and the withholding of employment or payroll taxes to the state employment service.

Table 2



For 1989, the number of new firms reported increased slightly, by 1.5 percent or 11,000 firms. The number had increased steadily between 1982 and 1987, then decreased by 15,000 firms in 1988. For the entire 1981–1989 period, an average of 865,000 new and successor firms were added each year and 751,000 were terminated, for an annual net gain of over 110,000 firms.

usiness Closures in 1989

Both measures of business closure normally reported by the SBA—business failures and business bankruptcies—decreased in 1989, continuing a downward trend established in 1988 (Table 4). Business bankruptcies in 1989, as reported by the Administrative Office of the U.S. Courts, were down 0.6 percent compared to 1988. Business failures as reported by the Dun and Bradstreet Corporation were down 12.9 percent for the same period.[23]

[23]Most business closings are unreported, because most are voluntary. Moreover, many small companies are too small to be included in any reporting system. Closings that are reported include business failures and business bankruptcies. The business bankruptcy series is produced by the Administrative Office of the U.S. Courts. A bankruptcy is an official petition to a federal district court from a business that cannot meet its debt obligations and asks for either reorganization of its debts or liquidation of its assets. The series on business failures is produced by the Dun and Bradstreet Corporation. A business failure is defined as the closing of a business with a loss to at least one creditor.

Table 3 Change in the Number of U.S. Businesses with Employees, 1981–1989
(Thousands)

Year	Firms at End of Year	Successor Firms	New Firms	Sum of New and Successors	Terminations
1989	5,676	155	743	898	820
1988	5,506	153	730	883	768
1987	5,391	164	748	912	731
1986	5,230	175	724	900	814
1985	5,124	165	716	881	754
1984	4,997	164	691	855	687
1983	4,829	171	633	804	717
1982	4,742	185	595	781	707
1981	4,668	NA	NA	NA	NA

NA = Data not available.

Note: The following definitions are applicable: successors are existing firms taken over by new or existing firms; new firms represent applications for new account numbers; and terminations represent firms that either reported being out of business or reported no employment for two years.

Each quarter, firms with employees are required to report their employment, payroll, and unemployment insurance tax liabilities to state employment services. The states in turn report number of new firms, terminations, and successors to the U.S. Department of Labor. These statistics from the Employment and Training Administration are organized into a master file that begins in third quarter, 1981. Data in this period are available from all states except Michigan, for which a 3½-year period beginning in 1985 was estimated from previous data. Current data are available six months following the end of the quarter.

The count of firms includes all active unemployment insurance taxpayers, including local, state, federal, and international governmental agencies. It includes virtually all nonfarm employers, except households, railroads, and selected religious organizations. Multi-state employers submit reports to each state in which they operate; therefore, the enterprise count includes some duplication, but because multi-state firms are relatively few in number, the count of firms in the U.S. is not significantly affected.

The change in the number of firms from one period to the next represents the addition of new and successor firms less the number of terminations during the period; however, because of changes in counting rules, computer procedures, and other problems, the computed changes are sometimes at variance with the reported data. In these few cases the data are edited so that they are internally consistent.

Source: U.S. Department of Labor, Employment and Training Administration, prepared for the Office of Advocacy, U.S. Small Business Administration, unpublished data, 1989.

In 1989, the SBA, using the data on firms with employees from state employment services, developed a third measure of business closings. These data measure terminations by the businesses responsible for most private nonfarm employment. The series is less "well behaved" than either the business bankruptcy or failure series in that it does not show a steady trend of increases or

Table 4

	Bankruptcies	Percent Change
1989	62,489	-0.6
1988	62,845	2.9
1987	61,463	-1.9
1986	79,928	12.2
1985	71,277	11.0
1984	64,211	2.9
1983	62,412	-9.9
1982	69,242	44.0
1981	48,086	10.1

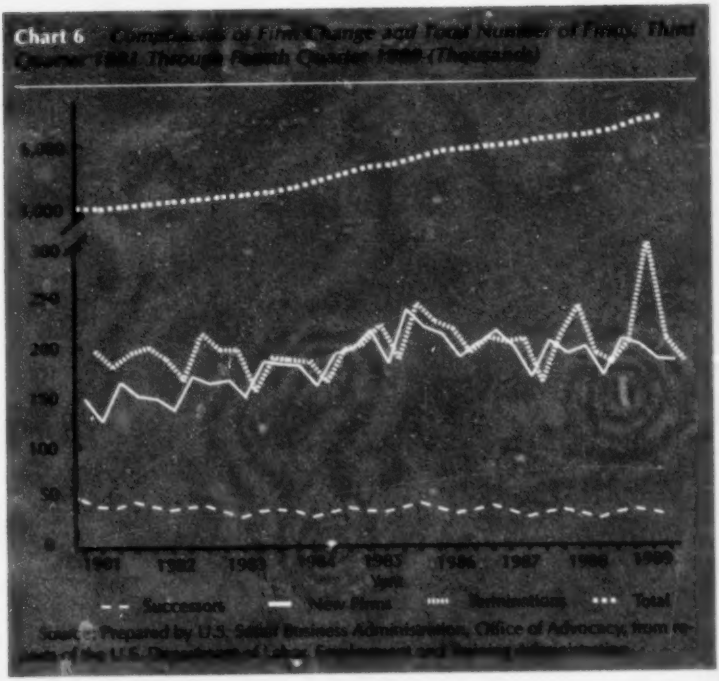
	Failures	Percent Change
1989	49,719	-12.9
1988	57,099	-6.6
1987	61,111	-0.8
1986	61,601	7.9
1985	57,067	9.6
1984*	52,078	—
1984*	28,835	-8.0
1983	31,334	23.5
1982	25,346	48.7
1981	17,044	45.4

*In 1985, Dun and Bradstreet revised the series on business failures, with initial data for 1984 and 1985. Data for both the old and the new series are shown for 1984. The revision reflects the increased coverage of D&B data.

Source: Adapted from Dun and Bradstreet Corporation press releases by the U.S. Small Business Administration, Office of Advocacy, and from unpublished data, courtesy of the Administrative Office of the U.S. Courts, Statistical Analysis and Reports Division.

decreases from year to year. Over the long term, however, business closings appear to be increasing gradually, in tandem with the rate of formation of new businesses (Chart 6).

For 1989, the termination series shows an increase in terminations, in contrast to the business failure and bankruptcy series, which show decreases. The fact that the three data series on business closures move in different directions is a reflection of the differences in the phenomena they measure. The business bankruptcy series in



one sense covers the largest universe: businesses of all sizes—from the very smallest to the very largest—which file for bankruptcy. The number of business bankruptcies reported is actually larger than the number of business failures: Dun and Bradstreet measures failures only among businesses large enough to be included in the Dun's Market Identifier data base. Approximately 75 percent of small firms with sales under $100,000 per year are not included in the Dun and Bradstreet data base.

The termination series reported by state employment agencies covers only firms with employment.[24] This series measures much more than failures, however, since it includes all closings by businesses with employees without regard to the reason for closing. An increase in the number of terminations reported in 1989 may reflect

[24]Self-employed individuals are not required to report their own employment to state employment services.

many factors other than the factors which cause either failures or bankruptcies such as voluntary retirement by some owners who were unable to find a willing buyer, mergers, and acquisitions.

The decline in business failures and bankruptcies should be read as good news for the economy, while the increase in business terminations, most of which are for voluntary purposes and reflect no loss to creditors, should not be read as negative.

Closings by Industry and Region

The number of business failures varied considerably by industry during 1989 (Table 5). Failures in the finance, insurance, and real estate industry rose 8.8 percent, for example, in contrast to the 13.6-percent drop across all industries.[25] Failures were down notably in service industries, −23.4 percent; and wholesale trade, −20.7 percent; but dropped less in retail trade, −6.0 percent; and transportation, communications, electric, gas, and sanitary services, −3.7 percent. In construction, the level of failures remained about the same. Increased failure rates were most notable in local and interurban passenger service, up 29.3 percent; liquor stores, up 22.5 percent; nonstore retailers, up 39.3 percent; real estate, up 7.2 percent; and combinations of real estate, insurance, and investment offices, up 87.5 percent. Industries with relatively large decreases in business failures in 1989 included textiles, down 22.8 percent; apparel and other textile products, down 32.9 percent; apparel and accessory stores, down 14.9 percent; and business services, down 44.3 percent.[26]

Business failures and bankruptcies also varied considerably across U.S. regions in 1989.[27] Business bankruptcies for the New England region, for example, increased by 66.0 percent, in marked contrast to the overall 0.6 percent drop, while business failures for New England increased 22.3 percent compared to the overall drop of 12.9 percent for the country. Bankruptcies in the southwestern United States (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas) dropped 14.1 percent, while the

[25] The total percentage change in business failures shown in Table 5 varies slightly from that shown in Table 4, because some of the business failures could not be classified by industry.

[26] Additional data on percent changes in the number of business failures by detailed industry may be found in Table A.15.

[27] Regions cited are SBA regions. For full definitional and individual state data, see Table A.13.

Table 5 Percent Change in Business Failures By Industry, 1988 and 1989

Industry	1988	1989	Percent Change: 1988–1989
All Business Failures	56,691	48,953	−13.6
Agriculture, Forestry, Fishing	1,819	1,394	−23.4
Mining	493	344	−30.2
Construction	6,828	6,827	0.0
Manufacturing	4,226	3,840	−9.1
Transportation, Communications, Electric, Gas, and Sanitary Services	2,100	2,022	−3.7
Wholesale Trade	4,459	3,534	−20.7
Retail Trade	11,487	10,800	−6.0
Finance, Insurance and Real Estate	2,540	2,763	8.8
Services	22,739	17,429	−23.4

Note: Totals exclude government and nonclassifiable establishments.
Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, Quarterly Business Failures, various issues.

farm states of Iowa, Kansas, Missouri, and Nebraska experienced a 21.3 percent drop, and the mountain states of Colorado, Montana, South Dakota, North Dakota, Utah, and Wyoming saw bankruptcies drop by 17.9 percent. Bankruptcies in the Pacific states of Alaska, Idaho, Oregon, and Washington also dropped significantly, by 16.5 percent. California bankruptcies decreased at approximately the national rate, while bankruptcy numbers increased significantly in Arizona and Hawaii.

Business failures by region were relatively consistent with business bankruptcies, except in New York and New Jersey, which showed a large decrease in failures, but a large increase in bankruptcies. Business failures declined precipitously in Texas and were generally down by more than the national rate throughout the farm states of Iowa, Kansas, Missouri, and Nebraska and the mountain states of Colorado, Montana, North Dakota, Utah, and Wyoming. Of the mountain states, all but South Dakota showed a greater than average decrease in business failures for the year. Along the Pacific coast, failure rates were down more than the national average in all states except Hawaii, a state which also had an increase in

bankruptcies. Business failures in California and Oregon dropped at approximately the same rate as the national average.

The business failure and bankruptcy numbers indicate that business conditions were worse for states in the northeastern part of the country, but improved in the southwestern United States, the farm states, and the mountain states. Business conditions appear to have been better on the west coast than on the eastern seaboard during this period.

Small Business Employment Growth

Nonfarm payroll employment rose by 2.474 million jobs or 2.3 percent over the year, to a record level of 110.4 million jobs in December 1989. Employment in small-business-dominated industries increased 3.2 percent between December 1988 and December 1989, while employment in large-business-dominated industries grew by only 1.4 percent (Table 6 and Chart 7). The more rapid employment growth in small-business-dominated industries is consistent with the employment trend since 1982 (Chart 8).

Small-business-dominated industries in the major industry divisions of services and transportation continued to exhibit higher employment growth than large-business-dominated industries in these industry divisions. In manufacturing, a sector composed primarily of large businesses, small-business-dominated industries managed to generate approximately 14,500 new jobs between December 1988 and December 1989 (an 0.3-percent increase), while large-business-dominated manufacturing industries lost approximately 79,500 jobs (an 0.7-percent decrease) (Tables A.24 and A.25).

On the other hand, in retail trade, traditionally a small-business-dominated sector, large-business-dominated industries have accounted for most of the recent growth.[28] In particular, grocery stores, a large-business-dominated retail industry, added over 132,000 employees in 1989 (Table A.25).

[28]While it has been unusual over the recent past for large-business-dominated industries to lead in job creation, large grocery stores have generated considerable new employment over the last several years. This may be for a number of reasons, including technical advances that have resulted in certain scale economies favoring larger firms. Large hospitals have also generated many new jobs in the 1980s.

Table 6 *Change in Employment by Size and Major Industry, December 1988 to December 1989*

Industry	Total, All Employment	Small-Business-Dominated Industries	Large-Business-Dominated Industries	Indeterminate Industries
Total, All Industries	2.4	3.2	4.4	1.5
Mining	3.7	0.2	4.3	NA
Construction	1.8	1.1	NA	7.8
Manufacturing	−0.5	0.3	−0.7	−0.9
Transportation	3.5	4.8	2.3	4.6
Wholesale Trade	3.0	3.0	NA	3.2
Retail Trade	2.0	1.8	2.5	1.3
Finance	2.1	3.3	1.6	NA
Services	4.6	5.4	3.4	2.6

NA = Indicates lack of industry representation within that size category.

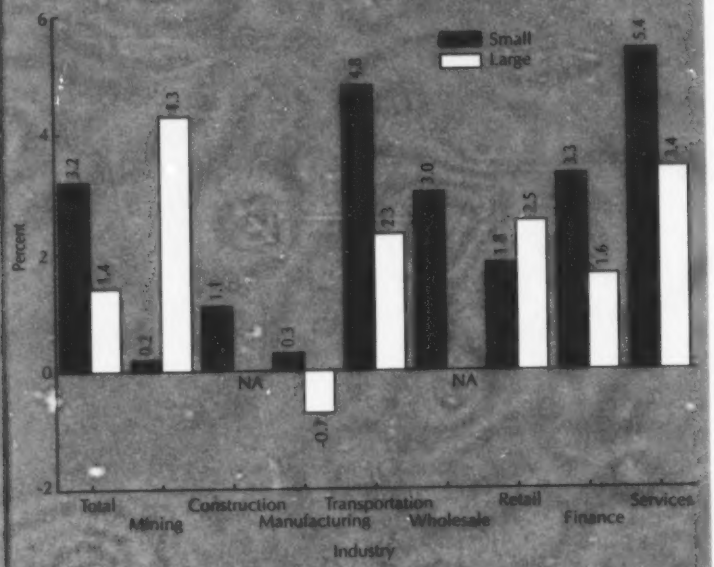
Note: Data exclude self-employed workers. Small business-dominated industries are industries in which 60 percent or more of employment is in firms with fewer than 500 employees. Large-business-dominated industries are industries that have 60 percent or more of employment in firms with more than 500 employees. A third set of industries, in which 40.1 to 59.9 percent of employment falls in either the large- or small-business-dominated category, constitutes an indeterminate group, where dominance is unclear.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (March 1990 issue), Table B-2.

Several small-business-dominated retail trade industries also generated significant employment gains during the 12 months ending in December 1989. These industries included eating and drinking places, miscellaneous shopping goods stores, and auto and home supply stores.[29] Other retail trade industries populated largely by small businesses showed employment decreases over the year. These industries included nonstore retail, new and used car dealers, and household appliance stores. Nonstore retail, which consists primarily of catalogue sales, had an employment decrease of 6.3 percent for the year. Many observers had expected a shakeout in this industry, given the rapid expansion in the number of firms in recent years.

[29]Miscellaneous shopping goods stores include a number of specialized retailers, such as sporting goods stores, book stores, jewelry stores, toy shops, camera stores, gift shops, luggage stores, and sewing shops.

Chart 7 *Employment Growth in Small- and Large-Business-Dominated Subsectors, December 1988–December 1989*



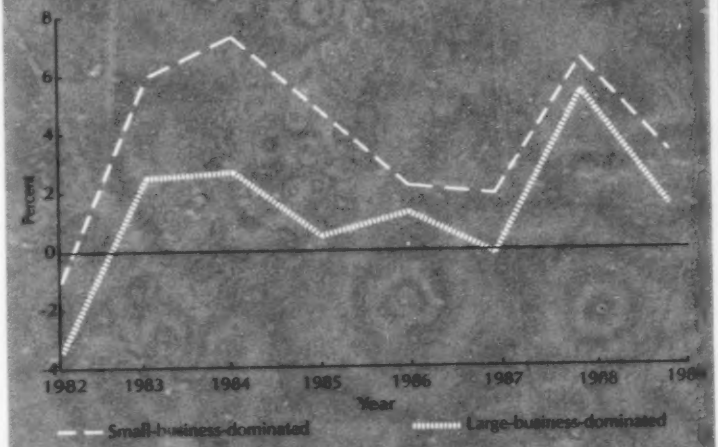
NA = Not applicable. No industrial subsectors in construction or wholesale trade are classified as large-business-dominated.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (March 1990).

Over half of the total growth in small-business-dominated industries came from growth in small business service industries, which increased employment by 5.4 percent overall, compared to 3.4 percent in large-business-dominated service industries. Rapidly growing small-business-dominated service industries included outpatient care facilities, with employment up 20.1 percent; medical and dental laboratories, 14.5 percent; mailing, reproduction, and stenographic, 14.2 percent; automotive rentals without drivers, 12.6 percent; and computer and data processing services, 10.9 percent.

In the large-business-dominated service industries, only the motion picture production and service industry showed similar growth, at 14.1 percent. Within the large-

Chart 8 *Annual Changes in Nonfarm Employment in Small- and Large-Business-Dominated Industries, December 1982–December 1989*



Source: U. S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (February 1990), Tables B-2.

business-dominated sector, the service industries fared better than other industries, however. Employment growth was primarily in health-related services, specifically hospitals, which increased 5.7 percent, adding over 193,800 more workers (Table 7).

Although the largest employment growth in any small-business-dominated industry was in a retail trade industry, eating and drinking places, which produced 107,000 additional jobs in 1989, eight of the ten small-business-dominated industries generating the most new jobs were in the service industries (Table 8). Most notably, employment in physicians' offices and computer and data processing services increased significantly, by more than 100,700 and 78,000 jobs respectively during the year.

Small Business Productivity

Because small businesses are typically more labor-intensive than their large business counterparts, small business profits are more closely tied to labor productivity. The Bureau of Labor Statistics (BLS) of the U.S. Department of Labor produces and publishes indices of output per employee hour (a measure of labor productiv-

Table 7. *Fastest Growing Industries: December 1988 to December 1989 (Percent Change in Employment)*

Industry	Percent Change 1988–1989
Small-Business-Dominated	
Outpatient Care Facilities	20.1
Medical and Dental Laboratories	14.5
Mailing, Reproduction, Stenographic	14.2
Automotive Rentals, Without Drivers	12.6
Electrical Repair Shops	11.4
Computer and Data Processing Services	10.9
Railroad Equipment	9.8
Residential Care	9.3
Offices of Physicians	8.7
Sporting Goods, Toys and Hobby Goods	8.5
Large-Business-Dominated	
Motion Picture Production and Services	14.1
Air Transportation	11.9
Air Transportation Services	10.4
Title Insurance	6.5
Medical Services and Health Insurance	6.2
Hospitals	5.7
Grocery Stores	4.6
Holding and Other Investment Offices	3.6
Colleges and Universities	2.5
Gas Production and Distribution	2.2

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, various issues.

ity) for several detailed industries, some of which are dominated by small businesses. Examining annual changes in output per employee hour for these small-business-dominated industries can provide insight into an important aspect of productivity in the small business sector.[30]

[30] It should be noted that BLS' indices of output per employee hour pertain to all businesses—that is, it is impossible to expressly examine output per employee hour for small businesses. Thus, it is possible that observed changes in this index are, in some industries, driven by changes in labor productivity and capital-labor ratios among large firms.

Table 8 *Industries Generating Most New Jobs: December 1988 to December 1989*

Industry	Employment Increase (Thousands)
Small-Business-Dominated	
Eating and Drinking Places	107.0
Office of Physicians	100.7
Computer and Data Processing Services	78.8
Nursing and Personal Care Facilities	78.3
Trucking and Trucking Terminals	69.8
Miscellaneous Business Services	65.8
Outpatient Care Facilities	57.8
Machinery, Equipment and Supplies	57.1
Residential Care	38.0
Mailing, Reproduction, Stenographic	32.9
Large-Business-Dominated	
Hospitals	193.8
Grocery Stores	132.6
Air Transportation	68.7
Colleges and Universities	26.2
Oil and Gas Extraction	21.4
Commercial and Stock Savings Banks	21.0
Motion Picture Production and Services	17.8
Medical Services and Health Insurance	14.0
Air Transportation Services	9.6
Holding and Other Investment Offices	7.5

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, various issues.

The factors that can result in increases in labor productivity in an industry are varied. In many industries, changes in labor productivity can be attributed to changes in businesses' capital-labor ratios. If businesses in an industry move toward more capital-intensive technologies—that is, increase their level of capital inputs per employee or replace existing capital with newer, more productive capital—then output per employee

hour can be expected to rise.[11] In other industries, technological change that enhances the marginal productivity of capital has helped to increase output per employee hour, independent of changes in capital-labor ratios.

Productivity has been calculated for the 1972–1988 period for 24 small-business-dominated industries (Table 9).[12] According to the SBA's Small Business Data Base, a total of about 7.3 million workers in these industries were employed by small businesses with fewer than 500 employees in 1986. While these industries may not be totally representative of the U.S. small business sector, they do span a wide variety of goods- and service-producing industries in which small businesses play a very important role.

Among the small-business-dominated industries experiencing the greatest average annual increases in productivity between 1972 and 1988 are several retail trade industries, including radio, television, and music stores; household appliance stores; women's ready-to-wear stores; and apparel and accessory stores. At first glance, capital inputs might not seem to play a very important role in these retail industries. In fact, however, the advent of computerized cash registers and the generally improved access to computerized accounting and inven-

[11]Movements of BLS' indices of output per employee hour essentially measure changes in the average—as opposed to marginal—product of labor. In industries where the capital-labor ratio of the representative business is rising, consequent increases in output per employee hour are largely manifestations of simple arithmetic. By definition, only labor appears in the denominator of output per employee hour, yet capital itself contributes to total output. Thus, increases of capital inputs relative to labor will result in increases in output relative to labor. Of course, the technology prevailing in many industries may be such that the marginal product of labor in businesses is positively related to the level of capital inputs in those businesses. The BLS' indices cannot be used to assess the extent to which the latter phenomenon is operative. It should be noted that BLS' indices of multifactor productivity measure changes in the value of output relative to changes in all inputs (including capital and intermediate goods and services) used in the production process. However, these latter indices are not available by detailed industry; that is, indices of multifactor productivity are not available for small-business-dominated industries.

[12]Productivity is measured by the average annual percent change in output per employee hour.

Table 9 *Change in Productivity in Selected Small-Business-Dominated Industries, 1972–1988**

SIC Code	Industry	Average Annual Percent Change	Small Business Share of Industry Employment	Total Industry Employment in Small Business (Thousands)
573	Radio, Television and Music Stores	7.7	88.9	132.6
572	Household Appliance Stores	5.1	76.6	74.2
5621	Women's Ready-to-Wear Stores	4.2	68.9	206.9
5541	Gasoline Service Stations	3.7	91.1	307.3
56	Apparel and Accessory Stores	2.9	69.6	555.0
5661	Shoe Stores	1.6	70.1	81.3
5511	Franchised New Car Dealers	1.1	95.7	834.8
58	Eating and Drinking Places	−0.7	79.5	2,701.5
592	Liquor Stores	−0.7	98.1	109.9
5912	Drug and Proprietary Stores	−1.7	65.2	254.2

*Average annual percent change from 1972 through 1987 only.

Note: Productivity is measured by the average annual output per employee hour. Businesses with fewer than 500 employees are categorized as small businesses. For additional industry data, see Table A.28.

Source: Unpublished tabulations of data produced by the U.S. Department of Labor, Bureau of Labor Statistics, prepared by the U.S. Small Business Administration, Office of Advocacy, 1989. (Figures pertaining to small business employment were obtained from the 1986 USEEM file of the Small Business Data Base, which is produced and maintained by the U.S. Small Business Administration, Office of Advocacy.)

tory management systems has increased the average product of labor in these industries.[33]

In other types of retail businesses, such as gasoline stations and stores selling consumer electronic goods and household appliances, there has been an increased emphasis on customer self-service, which has added to the labor productivity increases attributable to computerized cash registers, etc. In the case of gasoline stations,

[33] See James D. York, "Retail Liquor Stores Experience Flat Trend in Productivity," *Monthly Labor Review* (February 1987), 25–29; and Patricia S. Wilder and Virginia L. Klarquist, "Retail Hardware Stores Register Productivity Gain," *Monthly Labor Review* (May 1988), 39–43.

the movement is especially apparent—the labor input of some of these stations consists of little more than a single cashier who sits in a booth and accepts payment from customers through a window. Many consumer electronics and appliance stores, especially those offering substantial discounts, have moved to a semi-self-service mode of operation. That is, these stores cater to customers who already know what they want to purchase so that the number of items sold per employee hour tends to be greater than in more traditional stores where sales personnel act as advisors as well as transaction agents.

Small Business Earnings

Earnings data for 1989 show that nonfarm proprietorship earnings increased 6.2 percent, the lowest rate of growth experienced since 1982 (Table 10 and Chart 9).[14] Corporate profits, including the profits of small corporations with fewer than 500 employees, declined by 8.3 percent in 1989.[15] It is unlikely that smaller corporations' performance differed significantly from that of other corporations.

Small businesses have had good earnings or profit growth during most of the years of the current expansion. Sole proprietorship earnings have increased each year, although at steadily decreasing rates. When 1989 sole proprietorship earnings are adjusted for inflation (4.5 percent) and for the projected increase of 837,000 sole proprietorships and partnerships filing income tax returns in 1989, however, real proprietorship earnings declined in 1989.[16]

Labor Costs, Prices, and Profits

Labor costs and total compensation for private industry rose by approximately the same amount in 1989 as 1988. The Employment Cost Index—a measure of both wages and benefits paid to workers in private industry—increased by 4.8 percent in 1989, compared to 4.9 per-

[14]Approximately 85 percent of small businesses are sole proprietorships or partnerships, although the earnings of these businesses account for a minority of total small business earnings.

[15]Most small business profits are included in corporate profits, but profit data cannot be shown by business size categories until final corporate tax return data are compiled, approximately three years after the close of the tax year.

[16]The Consumer Price Index for the year increased 4.6 percent, while the Producer Price Index was up 4.8 percent in 1989 and the fixed-weight implicit price deflator for gross national product increased by 4.5 percent for the year. Any of these indices may be used to deflate profits or proprietorship earnings.

Table 10 Employment Compensation, Nonfarm Proprietorship Income, and Corporate Profits, 1980–1989 (Billions of Dollars)

Year	Employment Compensation		Nonfarm Proprietorship Earnings		Corporate Profits	
	Amount	Percent Change	Amount	Percent Change	Amount	Percent Change
1989	3,144.4	6.1	305.9	6.2	307.3	−8.5
1988	2,907.6	8.1	288.0	6.7	328.6	10.0
1987	2,690.0	7.9	270.0	9.2	298.7	5.9
1986	2,511.4	6.1	247.2	9.6	282.1	−0.1
1985	2,367.5	6.9	225.6	10.6	282.3	5.8
1984	2,213.9	9.6	204.0	14.3	266.9	24.9
1983	2,020.7	6.0	178.4	16.2	213.7	42.5
1982	1,907.0	5.5	170.9	−3.3	150.0	−20.2
1981	1,807.4	10.3	156.1	−2.5	188.0	6.1
1980	1,638.2	—	160.1	—	177.2	—

With inventory valuation adjustment and capital consumption adjustment.

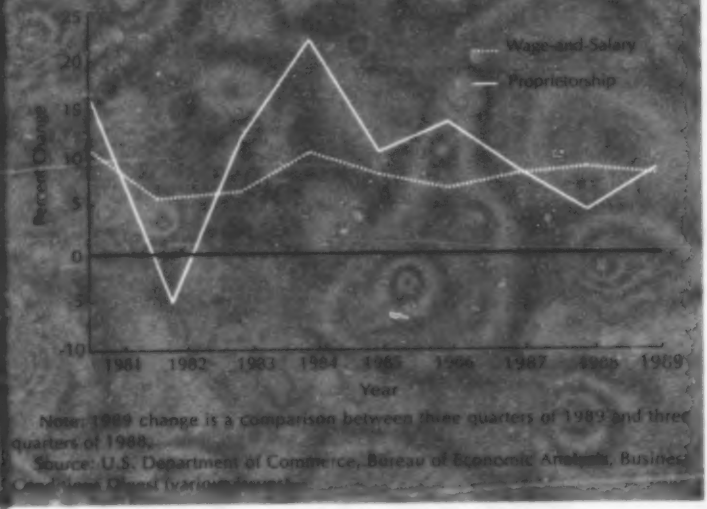
Note: The data are seasonally adjusted at annual rates. These are averages of the quarterly data.

Source: Council of Economic Advisers, Economic Indicators, various issues.

cent in 1988. Wage increases were almost identical in both years, up 4.2 percent in 1989 and 4.1 percent in 1988, but benefit increases moderated slightly, up 6.1 percent in 1989 versus 6.8 percent in 1988. The faster pace of benefit growth recently reflects the sharp increases in health insurance costs that continued to press businesses throughout 1989. With productivity gains weak in 1989, however, little of the rise in compensation was offset by higher worker productivity.

Other, nonlabor costs to small business also continued to rise during much of the year. Producer prices for finished goods, which had risen by 2.5 percent in 1988, increased by 4.8 percent in 1989. Consumer prices, reflected in the Consumer Price Index for urban consumers, increased 4.6 percent, only 0.2 percent greater than the 4.4-percent increases experienced in 1987 and 1988. From a small business perspective, the more rapid increases in the rate of growth of producer prices may indicate earnings problems in 1990 because many small

Chart 9 Changes in Wage-and-Salary and Proprietorship Income, 1981–1989



Note: 1989 change is a comparison between three quarters of 1989 and three quarters of 1988.

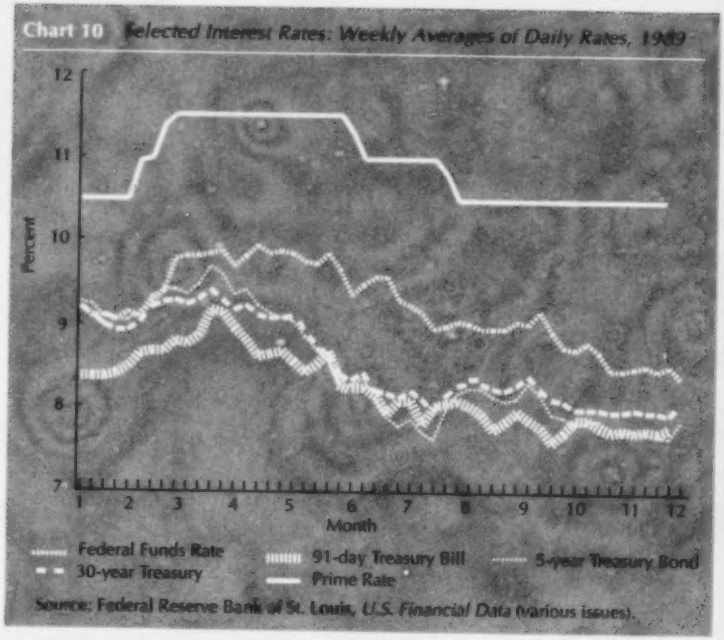
Source: U.S. Department of Commerce, Bureau of Economic Analysis, Business Conditions Digest (various issues).

businesses could not pass wholesale price increases completely through to consumers.

Interest Rates

Interest rates increased during early 1989, rising steadily from September 1988 through April 1989, and then falling slowly through the remainder of the year (Chart 10). The prime rate ended the year where it began, at a level of 10.5 percent, although it was higher for much of the year, rising to 11.5 percent between March and June before falling by early August. Other important short-term rates, including the Federal Funds rate and the 3-month Treasury bill rate, reached peaks in late March or early April, before moving down for the remainder of the year. Longer term rates reached peak levels in the mid-9-percent range in late March, and generally decreased for the remainder of the year to just under 8 percent by December 1989.

The downward trend in interest rates helped maintain housing starts, construction put in place, and new and used home sales for most of the year. While housing was depressed slightly from the levels of the past three years, the drop in housing starts was not of sufficient magnitude



to send the housing industry, an industry dominated by small and middle-sized firms, into a strong decline.

Capital Availability and Small Firm Earnings

The availability of funds was not a major problem for small businesses in 1989. Funds were obtainable through the banking system or through alternative sources of loanable funds such as commercial lenders and leasing firms. Some shortages of funds were noted near the end of the year, particularly in the housing industry, where a number of medium-sized firms found it difficult to obtain funds from savings and loan institutions or banks. One cause of this shortage may have been regulatory direction requiring S&Ls and banks to increase their capital-to-asset ratios. In the short term, institutions may find it easier to raise this ratio by reducing the number of loans rather than attempting to acquire additional capital through issuance of new stock.

The smallest businesses reported moderate increases in nominal earnings during 1989. The profits of nonfarm sole proprietorships and partnerships increased at an annual rate of 6.2 percent (Table 10). Although no small manufacturing sales index is available, it is likely that the sales of small manufacturing plants increased as small businesses continued to supply assemblies and components to larger businesses which enjoyed strong export demand.

Small construction firms, particularly firms specializing in housing construction, did face declining sales during the year. Rising long-term interest rates through April had some negative effects on housing starts, which were compounded by a brief upturn in long-term rates in August and September. Lower interest rates during the fourth quarter contributed to a rebound in housing starts in October and November.

Although rising consumer expenditures increased sales for many small businesses through the third quarter, weakness in durable retail sales in the fourth quarter lowered 1989 earnings for many retailers. For most small businesses, however, 1989 was a positive year, with both sales and nominal profits increasing moderately.

Brief Reports on Small Business Topics

Through its research, the Small Business Administration continues to expand knowledge of small business and its relationship to the economy as a whole, as well as to particular segments of the economy. Recent research based on newly available Census and SBA survey data has focused on the impact of cyclical changes on worker characteristics in small firms and on the availability of health insurance, retirement benefits, and parental leave benefits to small firm workers. The results of this research are summarized briefly here. Other recent research on women-owned firms, financing available to small business, and government procurement from small firms is highlighted in the appendices.

Changing Characteristics of Workers in Small and Large Firms, 1979–1988

Independent small businesses, which employ about half of the nation's private sector labor force, have made important contributions to the creation and retention of jobs in the economy during both recessions and expansions. To understand this phenomenon, it is useful to examine changes in employment by business size between 1979 and 1983—a period of two recessions—and between 1983 and 1988—part of the longest peace-

time expansion period in U.S. history.[17] Over this ten-year period, the work force has also been affected by major long-term demographic and structural changes.[18]

The demand for workers is derived from the demand for goods and services. The effect of an economic cycle on demand varies by industry. The supply of workers, on the other hand, is also related to the size and age mix of the population and its labor force participation rates. Demographic characteristics of workers also vary by industry, by the service or product produced, and by the size of the firm.

A cyclical downturn or upturn will affect workers differently in patterns related to their age, gender, race, education, overall work experience, and other key factors. Cyclical changes also intersect with long term structural changes in the economy to affect the types of workers employed by firms of different sizes.

Analysis of the CPS data for both the 1979–1983 and 1983–1988 periods indicates that small businesses were the major employers of younger, older, and female workers. During periods characterized by recessions, as in 1979–1983, small businesses are more likely than large businesses to have a cushioning effect by reducing the decline in employment.[19] Part of the strength of small

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[17]Data from the Current Population Survey (CPS), conducted by the Bureau of the Census, permit analysis of changes in the work force by business size for the two periods. CPS information organized by firm size is available in the May supplements to the 1979, 1983, and 1988 surveys. For an analysis of 1979 and 1983 CPS data, see "Changing Characteristics and Size of Business," *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1986), 225–256. For a discussion of the effect of cyclical fluctuations on small firms, see Thomas A. Gray, "The Role of Small Firms in Understanding the Magnitude of Fluctuations in the Economy," paper prepared for the Atlantic Economic Society Meetings, Philadelphia, October 6–9, 1983.

[18]For an analysis of future trends affecting small business, see "Small Business in the Year 2000," *Small Business in the American Economy* (Washington, D.C.: U.S. Government Printing Office, 1988), 1–39.

[19]While small firms' employment levels fluctuate more widely than large firms', the difference is less than the difference in output fluctuation between small and large firms. This means that small firms, much more than large firms, dampen the effect of output changes on employment by absorbing them rather than passing them on to workers. David E. Mills, *Industrial Fluctuations, Firm Size and Employment*, report no. PB85 175941, prepared for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1982), 12.

business performance is because of its concentration in those sectors of the economy least affected by business downturns, e.g. retailing, wholesaling, and service sectors. Net job losses for younger workers are likely to be lower in small firms than in large firms.

Typically, during expansionary periods, small firms can also be expected to lead in new hires, especially of younger workers. However, during the expansion of which the 1983–1988 period is a part, the proportion of younger workers declined more in small firms than in large firms (Table 11 and Chart 11). This probably reflects a structural change—the declining rate of growth of the labor force and the heightened competition for these workers between small firms and large firms. Large business can pay higher wages and provide more extensive benefit packages to attract entry-level workers than can small firms.

Between 1979 and 1983, the proportion of elderly workers dropped significantly in small firms, while increasing in large firms. In part, this change may be related to the 1982 amendments to the Age Discrimination in Employment Act (ADEA), which require firms with 20 or more employees offering health insurance also to cover workers aged 65 to 69. The amendments also require that the employer's health plan be the primary payer of health costs.

The shift of older workers to large firms halted between 1983 and 1988; in 1988, small firms with fewer than 500 workers employed 78.4 percent of elderly workers, a drop of just one percent from the 1983 level. Continuing a long-term trend, the percentage of the work force that is female rose during both periods—1979–1983 and 1983–1988. However, the increase was almost 4 percent during the first period and less than 1 percent during the second. The increase in female workers was also greater in large firms than in small firms, although small firms still employed a majority of the female work force in 1988.

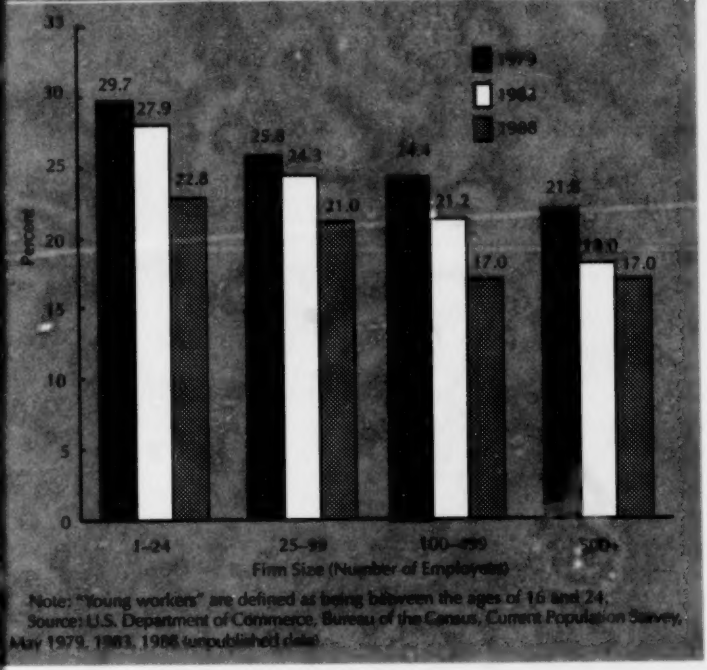
The proportion of both blacks and Hispanics in the work force increased between 1979 and 1988. In all three years—1979, 1983, and 1988—blacks comprised a larger proportion of large business workers than of small, and virtually all black wage-and-salary employment growth occurred in large firms. Blacks represented 6.8 percent of all wage-and-salary workers in firms with fewer than 500 employees in 1983. In 1988, the proportion of blacks in small firms remained the same, while the proportion in large firms had increased from 8.8 to 10.6 per-

Table 11 *Selected Demographic Characteristics of Wage-and-Salary Workers by Firm Size, 1979, 1983, 1988 (Percent of Total Work Force)*

Demographic Characteristics	Total, All Firms	Employment Size of Firm						
		1–24	25–99	100–499	500+	Under 100	100+	Under 500
Age								
16–24								
1979	25.1	29.7	25.8	24.4	21.8	28.4	22.4	27.6
1983	22.3	27.9	24.3	21.2	18.0	26.7	18.8	26.2
1988	19.2	22.8	21.0	17.0	17.9	22.2	17.0	20.9
65 & Over								
1979	2.1	4.1	2.9	1.9	0.5	3.7	0.8	3.3
1983	2.0	3.6	1.9	1.9	1.0	3.1	1.2	2.9
1988	2.1	3.9	2.4	1.9	1.0	3.4	1.2	3.0
Women								
1979	39.8	43.2	40.9	42.5	36.3	42.4	37.7	42.5
1983	43.4	44.3	43.8	45.5	41.9	44.1	42.8	44.4
1988	44.0	44.8	42.5	45.6	43.5	44.0	44.0	44.4
Black								
1979	7.2	6.3	6.9	7.5	7.9	6.5	7.8	6.7
1983	7.6	6.2	6.7	8.3	8.8	6.4	8.6	6.8
1988	8.5	5.5	6.7	9.1	10.6	5.9	10.4	6.8
Hispanic								
1979	4.5	4.6	6.5	5.1	3.5	5.2	3.9	5.3
1983	5.4	6.0	6.6	5.9	4.5	6.2	4.8	6.1
1988	6.4	7.5	7.2	5.6	5.7	7.8	6.0	7.0
Vietnam Veterans								
1979	7.8	5.9	7.1	7.9	8.2	6.3	8.9	6.7
1983	6.9	4.7	6.0	6.5	8.9	5.1	8.3	5.4
1988	5.8	3.9	4.8	5.4	7.3	4.2	6.9	4.5
Less Than 4 Years of High School								
1979	22.0	26.4	26.1	22.0	17.6	26.3	18.6	25.3
1983	17.2	21.8	20.3	16.5	13.1	21.4	13.9	20.2
1988	16.1	18.6	18.7	15.7	13.9	18.6	14.3	17.9
4 Years or More of College								
1979	16.0	13.5	14.4	17.8	17.9	13.8	17.7	14.5
1983	20.0	16.6	17.3	20.6	23.1	16.7	22.5	17.7
1988	20.9	17.6	19.9	22.0	22.9	18.4	22.7	19.3

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations by Sheldon Haber of unpublished data from the U.S. Department of Commerce, Bureau of the Census, *Current Population Survey*, May 1979, May 1983, and May 1988.

Chart 11 *Young Workers' Proportion of the Work Force, by Firm Size, 1979, 1983, and 1988*



Note: "Young workers" are defined as being between the ages of 16 and 24.
Source: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1979, 1983, 1988 (unpublished data).

cent. This increase occurred for both black men and women.

The pattern for Hispanic workers is different: many are recent immigrants and are more likely to work in small firms than large firms. In 1988, 7.0 percent of workers in firms with fewer than 500 employees were of Hispanic origin, compared with 5.7 percent in firms with 500 or more employees. Increases in Hispanic wage-and-salary workers have been similar in both small and large firms.

The proportion of workers that are Vietnam veterans fell between 1979 and 1983 and between 1983 and 1988 as their share of the work force decreased (Table 12). Within the Vietnam veteran category, however, the proportion employed in small businesses with fewer than 500 employees increased significantly in the 1979–1983 period, from 49 percent to 58 percent. Between 1983

Table 12 *Economic Characteristics of Wage and Salary Workers by Firm Size, 1979, 1983, 1988 (Percent of Total Work Force)*

Economic Characteristic	Total, All Firms	Employment Size of Firm							
		1–24	25–99	100–499	500+	Under 100	100+	Under 500	
Covered by Union Contract									
1979	22.8	6.6	17.1	23.9	35.0	10.1	33.1	13.1	
1983	18.0	4.7	14.7	19.4	30.1	7.9	27.5	10.6	
1988	13.9	3.9	9.0	15.4	21.3	5.2	19.6	7.4	
Part-Time Workers[1]									
1979	15.0	23.3	21.1	16.8	16.7	23.3	21.9	16.6	
1983	14.7	18.6	22.6	21.0	18.6	21.6	19.2	19.2	
1988	15.2	21.1	18.9	12.3	12.5	22.2	17.0	20.0	
Previously Self-Employed[1]									
1979	4.7	10.6	7.1	3.5	3.4	8.2	6.1	5.7	
1983	3.3	8.2	5.8	3.7	2.6	6.9	4.9	5.2	
1988	4.8	14.3	7.8	3.1	0.8	10.6	5.9	8.3	
Two or More Employers[1]									
1979	17.1	15.4	20.2	17.5	13.6	17.1	14.4	20.3	
1983	15.4	16.4	15.0	18.3	9.3	17.5	10.4	16.7	
1988	16.7	17.3	19.4	18.2	13.9	18.3	14.9	19.0	
Unemployed in Prior Year[2]									
1979	11.3	13.2	12.5	10.3	8.2	13.3	9.8	13.1	
1983	14.8	18.3	16.0	13.5	11.8	18.3	12.0	17.2	
1988	10.1	12.8	11.9	11.2	7.6	12.6	8.4	12.3	
Employed in Goods-Producing Firms									
1979	32.6	21.7	34.2	41.1	40.6	36.1	48.9	25.6	
1983	33.6	22.2	31.6	34.0	41.2	25.5	39.7	27.5	
1988	32.6	24.2	31.3	36.6	37.3	26.7	37.3	29.1	
Employed in Service-Producing Firms									
1979	67.4	78.3	65.8	58.9	59.4	63.9	51.1	74.4	
1983	66.4	77.8	68.4	66.0	58.8	74.5	60.3	72.5	
1988	67.4	75.8	68.8	63.4	62.7	73.3	62.8	70.9	

[1] Questions asked in 1979, 1983, or 1988 but answers refer to previous year—1978, 1982, 1987.
[2] Unemployed or looking for work for one or more weeks in previous year.
Source: U.S. Small Business Administration, Office of Advocacy. Tabulations by Sheldon Haber of unpublished data from the U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1979, May 1983, and June 1988.

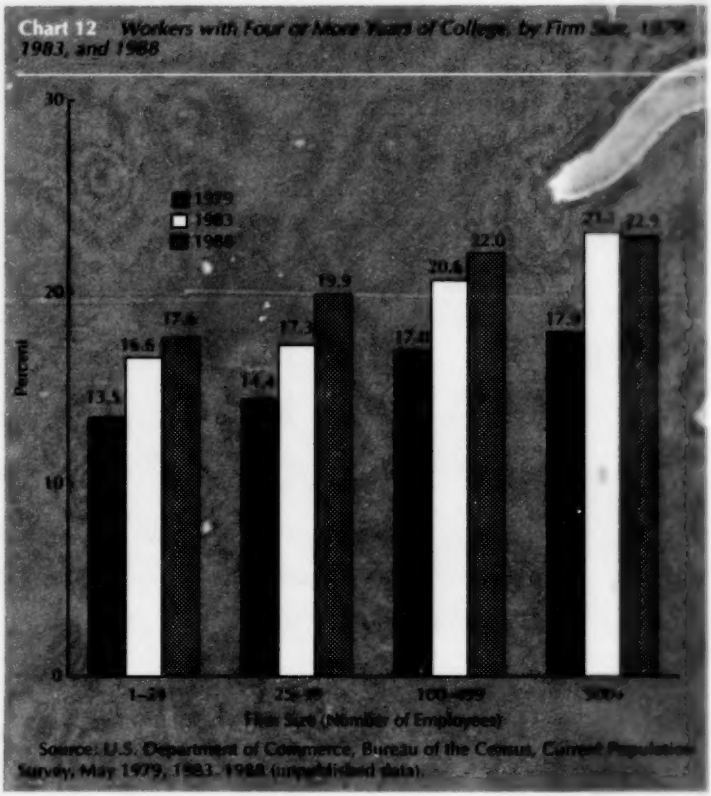
and 1988, however, employment of Vietnam veterans shifted back toward large firms. While in 1983, 57.9 percent of these veterans worked in small firms, only 42.8 percent did so in 1988.

Over the 1983–1988 period, the educational level of the work force increased in small firms while remaining about the same in large firms. Jobholders who completed at least four years of college made up a higher proportion of workers in small firms in 1988 than in 1983 and in 1983 compared to 1979 (Chart 12). While the increase in highly educated workers was greater in large firms than in small between 1979 and 1983, that trend reversed itself between 1983 and 1988, when small firms showed increases and large firms showed no increases in highly educated workers. At the other end of the educational spectrum, small firms were more likely than large firms to employ workers with less than a high school diploma—those with special needs for a "first job" and basic skills training. Research findings indicate that small firms with fewer than 100 workers provide most of the initial work opportunities.

Major differences were evident between small and large firms in certain economic characteristics of their workers over the ten-year period (Table 12). Declines in coverage by union contracts occurred for workers in both small and large firms. The drop was particularly dramatic in small firms with under 100 workers, where coverage declined from about 10 percent of workers in 1979 to about 5 percent in 1988. The decline was greater in the 1983–1988 period than in the earlier period, probably a reflection of the growth of nonunion service sector jobs during the expansion.

Part-time employment also changed dramatically during the 1979–1988 period. The proportion of part-time employees varied by firm size; almost one-third of all workers in the smallest firms with fewer than 25 employees worked less than 35 hours per week, compared with about 12 percent of workers in large firms. The proportion of part-time workers increased in all firm sizes during the economic downturn in 1979–1983 and declined for workers in both small and large firms during the expansion from 1983 to 1988. The decline was about the same in small and large firms.

Wage-and-salary workers in the smallest firms (under 25 employees) were more likely to have been self-employed during the year before each survey than workers in large businesses with 500 or more employees—over 14 percent compared to less than one percent in



1988. In this regard, cyclical changes affected workers in small firms more than those in large firms. In all three years—1979, 1983, and 1988—under one percent of workers in large firms were self-employed during the previous year, while in small firms the percentage fluctuated from 6.7 percent in 1979, to 5.3 percent in 1983, to 8.3 percent in 1988. The shift of the self-employed to wage-and-salary employment decreased during the 1981–1982 recession, perhaps because of the relative scarcity of wage-and-salary jobs and a tendency of the self-employed to continue working during a recession. During

the upturn, many left self-employment to take wage jobs in small firms—especially in the smallest firms.[40]

A measure of job mobility—the proportion of workers with two or more employers during the previous year—declined across all firm sizes between 1979 and 1983, but then increased between 1983 and 1988 as the economy expanded. Workers' job mobility usually decreases during an economic downturn, when employees have fewer job opportunities in other firms. Recent research has indicated that small firms have significantly higher separation rates than large firms—about 27 percent of workers in small firms left the firm during one study's one-year reference period (between 1984 and 1985), compared with 15 percent of workers in large firms.[41]

The proportion of workers in both small and large firms unemployed during the previous year increased substantially between 1979 and 1983. However, as the economy expanded between 1983 and 1988, this proportion dropped sharply in both small and large firms. During both periods, more small firm than large firm workers had been unemployed, suggesting that small firms are more likely to hire the unemployed. This, in part, may be related to the mobility patterns of younger and older workers, who have greater flexibility and are more likely to change jobs than prime-age workers.

The CPS data for 1979, 1983, and 1988 reinforce evidence from the SBA's Small Business Data Base that employment growth patterns are likely to differ considerably among industries. The proportion of large firm wage-and-salary workers employed in goods-producing industries declined steadily from over 48 percent in 1979 to about 37 percent in 1988. At the same time, small firm workers employed in the goods-producing sector

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[40]A key reason why many leave self-employment when wage-and-salary jobs expand is that, on average, wage-and-salary work pays substantially better than self-employment. See *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1986), 128–133. For a more detailed discussion of self-employment as a small business phenomenon see *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1985), Chapter 4, "Self-Employment as Small Business."

[41]D. Drury, W. Dickens, and C. Martin, *Labor Turnover and Worker Mobility in Small and Large Firms: Evidence from the SIPP* report no. PB89 179360, prepared by Berkeley Planning Associates for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1988), 3–6.

increased slightly during this period.[42] The proportion of small firm workers employed in the services industries remained fairly constant over the ten-year period. In large firms the proportion of workers in service industries increased dramatically, offsetting a drop of employment in goods-producing industries.

In sum, small businesses made major contributions to employment during both the 1979–1983 recessionary period and the 1983–1988 period—part of the current economic expansion. During both periods, they were the major employers of younger, older, and female workers. While the proportion of blacks in small firms decreased, the proportion of Hispanics increased. In a reversal of the 1979–1983 trend, the proportion of all Vietnam veterans increased in large firms between 1983 and 1988. The quality of the small business work force is improving: over the 1983–1988 period, the educational level of the work force in small firms increased while it remained about the same in large firms.

Health Insurance Availability and Coverage in Small and Large Firms

For a variety of reasons, a number of Americans do not have health insurance. Research has shown that many of the uninsured are employed, with about three-fourths of uninsured private wage-and-salary workers employed in small firms.[43] In an environment of rapidly rising health care costs, employers in both small and large firms are vitally interested in providing affordable, quality health insurance for their workers. Health plan costs are significantly higher for small than large employers.[44] Yet new Census data indicate that even as costs have increased, health insurance coverage in small firms has risen.

Future trends are likely to emphasize the importance of providing affordable insurance. With the rate of growth of the labor pool declining over the next decade, small businesses will have to compete for a smaller cohort of work-

[42]For a detailed discussion of the growing significance of small business in the manufacturing sector, see "Small Business in Manufacturing," *Small Business in the American Economy* (Washington, D.C.: U.S. Government Printing Office, 1988), 41–62.

[43]For a discussion of the working uninsured by size of firm, see "Health Care Costs and Coverage in Small and Large Firms," *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, 1987), 133–183.

[44]*Ibid.*, 162–167.

ers.[45] Owners recognize that their employees need health insurance and are aware that they must provide adequate benefits if they are to attract and retain capable and loyal employees.

As the work force ages, the demand for health insurance will increase and even more effective efforts will be needed to curb rising health insurance costs. The work force of the next decade will include more minorities, immigrants, and women—workers who have high turnover are likely to work on a part-time or seasonal basis, and often are more expensive to insure.

Reasons for Disparities in Employer Health Coverage

The disparity in health benefit coverage between small and large firms exists for numerous reasons, which include the characteristics of firms, worker characteristics, and factors related to the health delivery system. Many small employers find health insurance coverage difficult to obtain, or if it is available, find the cost prohibitive.

The profitability of a firm is the major determinant of whether it provides health insurance coverage for employees.[46] Because of their lower and more unstable profits, small businesses are less able than large businesses to afford costly fixed premiums necessary to sustain health benefits. In addition, particularly in the beginning years, small business owners may prefer to expand their businesses by reinvesting earnings.

Because of differences in the way tax laws treat health insurance plans provided by firms with different corporate structures, health insurance effectively costs more for owner-operators of unincorporated small businesses.

Most small businesses are sole proprietorships or partnerships. Federal income tax law allows these unincorporated self-employed individuals to deduct only 25 percent of their own health insurance payments; these payments are 100 percent deductible for corporate owners. A self-employed person may provide a health insurance plan for his business and pay 100 percent of the premium for the employees; the value of the health insur-

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[45]For a discussion of the implications of future trends on small business, see "Small Business in the Year 2000," *Small Business in the American Economy* (Washington, D.C.: U.S. Government Printing Office, 1988), 1–39.

[46]Robert J. Rubin, *Health Care Coverage and Costs in Small and Large Businesses*, report no. PB87 194767, prepared by ICF Incorporated for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1987).

ance would be excluded from the workers' income, but the owner of the business would not receive a dollar of tax advantage from participation in the plan.[47]

Insurance industry practices also effectively guarantee that smaller employers pay larger premiums. Smaller firms applying for group health insurance coverage face higher premiums because the risk is spread over fewer participants. Small firms which provide insurance are therefore likely to make a higher proportion of their workers eligible for insurance than large firms. Medical underwriting makes it difficult for many small businesses to obtain insurance for all employees at a reasonable cost.[48] Typically, insurers are less willing to underwrite a generous benefit package for a small plan than for a larger plan. Small firms are also less likely to provide health plans because they lack the scale economies in personnel and benefit management.

Small firms are less likely to be able to self-insure because they cannot accept the risk of large out-of-pocket claims. The recent availability of "minimum premium plans" may reduce this risk for small firms as well as large ones.[49]

Characteristics of the small business work force and worker preferences also militate against higher levels of employee health benefits in small firms. Compared to large businesses, small firms hire more younger and older workers, women, minimum wage workers, and minorities. Some of these groups may be especially difficult or expensive to insure. Young or low-wage workers may prefer a higher salary to health benefits.

Small businesses have higher turnover rates and more part-time and seasonal workers; all of these increase the paperwork and administrative costs of providing health

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[47]For a discussion of the issue of the health deduction for the self-employed, see Testimony on the Impact of Current Tax Laws on Small Business by Honorable Frank S. Swain, Chief Counsel for Advocacy, U.S. Small Business Administration, before the Senate Committee on Small Business, September 13, 1989. The 25-percent deductibility expires September 30, 1990.

[48]Medical underwriting involves an insurer's decision to use health examinations or medical records to exclude certain individuals from the policy or to exclude coverage for particular health conditions. National Health Policy Forum, Issue Brief 516 (Washington, D.C.: The George Washington University, April 1989), 4.

[49]A minimum premium plan is an arrangement under which an insurance carrier will, for a fee, handle the administration of claims and insure against large claims for a self-insured group.

benefits.[50] The fact that insurance premiums are the same per employee, whether the employee is part-time or full-time, also adds to the expense for small firms employing more part-time workers.

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Data from the nationwide benefits survey of the Current Population Survey (CPS) conducted by the Bureau of the Census in May 1979, May 1983, and May 1988 permit analysis of general changes in health insurance coverage over the ten-year period from 1979 to 1988.[51]

The proportion of workers covered in an employer's health plan did not change dramatically between 1979 and 1988. About two-thirds of all workers are covered by employer-provided insurance. Workers in small firms are less likely to be covered than their larger counterparts. While 66.8 percent of all workers in 1988 were covered by employer health plans, only 39.2 percent of workers in firms with fewer than 25 employees were covered, compared with over 79 percent of workers in firms with 100 or more employees (Table 13 and Chart 13).

Health insurance coverage in small firms has actually increased slightly. The proportion of workers with insurance in the smallest firms increased from 36.9 percent in 1979 to 39.2 percent in 1988. In larger firms with 100 or more employees, the proportion of workers included in an employer's health plan declined from 84.2 percent in 1979 to 79.3 percent in 1988. This may indicate that larger firms are hiring more contingent workers—temporary, on-call, or short-term hires—who are probably less likely to be offered or to be covered by health insurance.[52]

The 1988 CPS data confirm that the availability of employer-provided health insurance increases with firm size. While 81 percent of all wage-and-salary workers

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[50]Drury, et al., *Labor Turnover*, 3–6.

[51]These data permit analysis in 1988 of whether wage-and-salary workers are offered or covered by employer-provided health insurance by firm size, reasons workers are not covered, and effects of worker characteristics on health insurance availability and coverage. The more limited 1979 and 1983 CPS data permit analysis only of worker coverage by employer-provided insurance by firm size. For an analysis of health insurance coverage using 1979 and 1983 CPS data, see "Changing Patterns in Employee Benefits," *The State of Small Business: A Report of the President* (Washington, D.C.: U.S. Government Printing Office, May 1985), 245–287.

[52]SBA's Office of Advocacy is currently undertaking a study of the contingent work force in small and large business.

Table 13 Group Health Insurance Coverage of Wage and Salary Workers by Employment Size of Firm, 1979, 1983, and 1988 (Percent)

	All Firms	Employment Size of Firm						
		1–24	25–99	100–499	500+	Under 100	100+	Under 500
Included in Employer's Health Plan								
1979	67.2	36.3	65.0	76.8	86.4	45.8	84.2	52.7
1983	67.2	38.7	65.4	75.2	85.4	47.2	82.9	53.4
1988	66.8	39.2	65.9	74.4	80.8	48.6	79.3	55.0

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations by Sheldon Haber of unpublished data from the U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1979, May 1983, and May 1988.

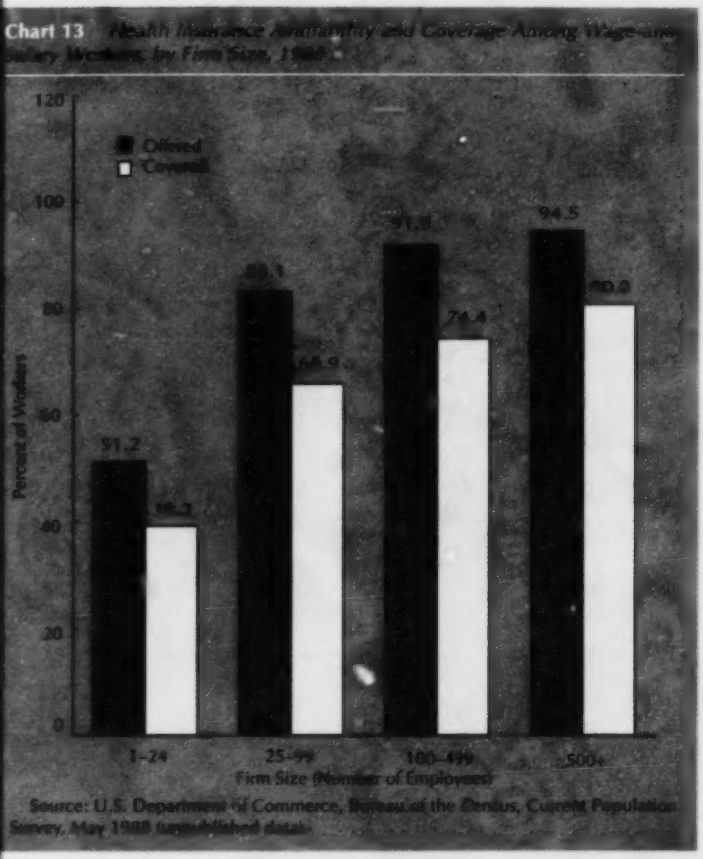
were offered health insurance by their employers, only 42 percent of all workers in firms with under 10 employees were offered insurance compared with about 94 percent of workers in firms with 100 or more employees (Table 14).

Workers are more likely to be offered health insurance in a firm of any size if they are male, of prime-working age (25–64 years old), white, married, and highly educated. This may be because prime-age white married males are more likely to be full-time, primary household wage earners who demand insurance.[53]

The fact that insurance is offered does not mean that all workers in the firm are covered. The CPS data indicate that the percentage of employees covered in firms offering coverage is not related to the size of the firm. Regardless of a firm's size, about 4 out of 5 workers take advantage of health coverage when it is offered. Those who do not, seem to be about evenly divided between having other coverage elsewhere and not.

Ineligibility is the single most important reason for an employee's not having coverage in a firm that offers it; this is a more significant factor in large companies than in small (Table 15 and Chart 14). The second major reason is that the employee is covered under another worker's policy, a reason more common in small firms than large. Third, about 20 percent of workers in firms of all sizes indicate that they did not accept employer-offered health

[53] *The State of Small Business*, 1987, op. cit., 155–157.



Source: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1988 (unpublished data).

insurance because they have other health insurance for themselves. A fourth reason given, the high cost of coverage, is more often cited by workers in small firms (10 percent) than in large (6 percent).

A worker's coverage under an employer-sponsored health plan is also related to length of service. In firms of all sizes, workers who have been with a firm for at least a year are more likely to be eligible for coverage. However, workers in small firms, especially the smallest firms with fewer than 10 employees, are significantly more likely than workers in larger firms to be eligible immediately.

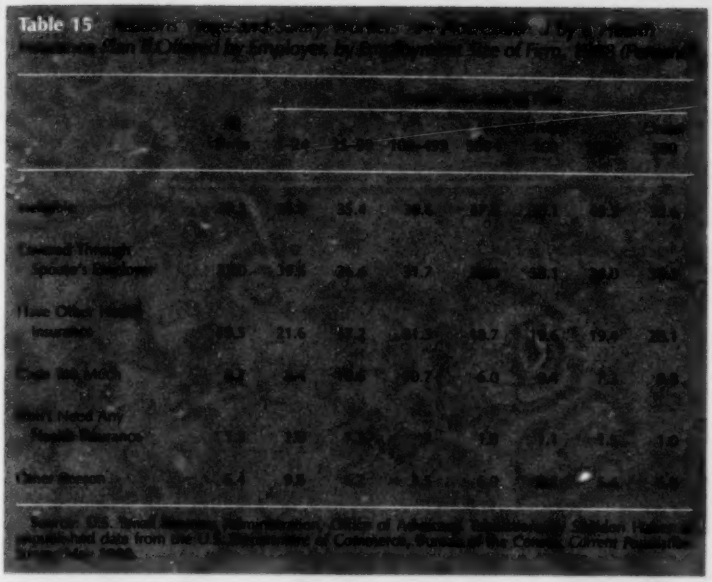
Table 14 *Demographic Characteristics of Wage-and-Salary Workers Offered Employer-Provided Group Health Insurance by Size of Firm, 1988 (Percent)*

	All Firms	Employment Size of Firm						
		1–24	25–99	100–499	500+	Under 100	100+	Under 500
All Workers	81.0	51.2	83.1	91.9	94.5	62.4	93.9	69.7
Age								
16–24	67.6	36.6	73.7	86.9	84.4	48.9	84.5	56.2
25–44	85.4	58.2	88.0	94.1	96.9	66.1	96.2	75.1
45–64	82.3	50.5	86.6	91.4	96.1	62.9	95.1	70.3
65+	65.9	43.8	86.1	93.6	84.1	84.3	87.9	69.5
Gender								
Men	83.2	54.9	85.4	92.8	95.9	65.9	96.0	72.4
Women	78.2	46.5	79.9	90.9	92.8	59.5	92.3	66.5
Marital Status								
Married, Spouse Present	84.0	54.8	87.2	92.7	96.8	66.2	95.6	73.0
Other	76.7	46.1	77.8	90.8	91.5	57.1	91.3	65.1
Ethnic Category								
White and Other	81.0	52.4	83.7	92.4	94.9	63.3	94	70.3
Black	78.3	30.3	74.9	87.2	91.0	47.2	90.2	61.0
Hispanic	66.8	34.5	65.5	88.4	96.2	45.1	90.6	53.8
Non-Hispanic	81.9	52.5	84.4	92.1	94.2	63.8	94.1	70.9
Years of Education								
8 or fewer	65.0	30.1	70.0	89.4	85.4	44.3	85.1	53.3
9–11	81.5	51.8	83.0	92.8	95.2	62.4	94.7	69.9
12 or more	90.8	69.8	95.0	94.6	97.8	79.4	97.1	83.7

Source: U.S. Small Business Administration, Office of Advocacy, Tabulations by Sheldon Haber of unpublished data from the U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1988.

Reasons given for lack of coverage are also divided along gender lines. The most important reason men cite for not being covered by an employer-provided plan is ineligibility. Women most often cite the fact that they are covered through a spouse's employer.

Most employees, including small business employees, have access to some kind of health coverage; however, many small firms, especially the smallest firms, do not or cannot offer health insurance because of lack of profits,

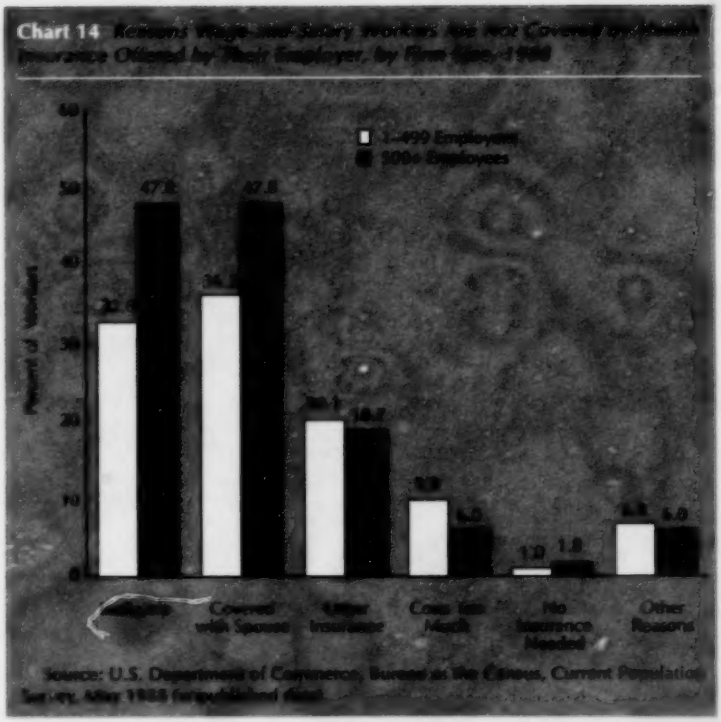


the high cost of insurance, and less advantageous tax laws. The patterns of employer-provided coverage have changed slightly over the past ten years, with small businesses increasing coverage and large businesses decreasing coverage slightly. This phenomenon is remarkable, given the significant rise in the costs of health care over the same period. The increase in small firm coverage probably partially reflects pressures to meet increasing competition for qualified employees.

Retirement Plan Availability and Coverage

Employee benefits, including retirement benefits, are a vital part of the package small firms offer to hire and retain productive workers. Dramatic changes are taking place which will affect the prospects of small businesses offering retirement benefits between now and the year 2000.[54] The average age of the work force will increase and growth in the labor force will continue to slow.

[54]For an analysis of trends affecting small business between now and the year 2000, see "Small Business in the Year 2000," *Small Business in the American Economy* (Washington, D.C.: U.S. Government Printing Office, 1988), 1–39.



Changes in the work force will challenge the continued effectiveness of the current retirement system, built on assumptions of long service to one employer. The issue of benefit plan "portability" will become especially important.[55]

Fringe benefits such as employee pensions have become and will continue to be increasingly important components of the total compensation package. Employer costs for employee benefits rose almost 20 percent more than wages during the 1980s, and voluntary benefits—which include pensions—accounted for 18.5 percent of total compensation costs by March 1990.[56]

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[55] "Portability" means the ability of an employee to transfer the present monetary value of vested pension credits to a future plan after leaving an employer.

[56] *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, February 1990), 345.

Employers are not required to offer retirement benefits to their employees, but if such benefits are offered, federal regulations strongly influence their form and cost.[57] For the past several decades, national tax policy has encouraged employers to provide pension benefits to their employees. At the same time, federal regulators have taken steps to ensure that the benefits offered are accurately disclosed and are administered fairly.

Yet government policy in the pension area has probably had less effect on small business than is generally thought. The principal determinant of whether a small employer provides pension benefits is the profitability of the business. Neither the owner nor the employees of a business will be motivated to set aside money for a pension plan or an Individual Retirement Account (IRA) if the business is unprofitable or if individual income is low. The availability of a tax deduction for firms providing retirement benefits is no incentive to a business with little cash flow and no taxable profits, as is the case with many small or start-up businesses.

On the other hand, if a business with a healthy cash flow is considering tax-deductible contributions to pension plans, the costs and paperwork resulting from federal regulations can prove prohibitive. Revisions in tax law have required certain benefit plan modifications which increase the cost of providing benefits. Additional administrative costs are more likely to result in disproportionately higher per capita costs for smaller firms, because about the same time and expense are required to establish a plan for 5 employees as for 50.

The same CPS nationwide benefits survey that provides information on small firm health coverage also permits analysis of general changes in pension coverage over the 10-year period between 1979 and 1988. Data are available by size of firm on the availability and coverage of wage-and-salary workers by an employer-provided pension, profit-sharing, or stock plan. The reasons why workers are not covered by employer-provided retirement plans, when offered, and the relationship between

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[57]For a comprehensive discussion of the effects of federal regulations on small versus large business, see James Bell Associates Inc. and Lewin/ICF, Inc. "Cost and Impact of Federal Regulation on Small versus Large Business Retirement Plans" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, draft final report awarded under contract no. SBA-3058-OA-88, December 1989).

worker characteristics and the availability and coverage of retirement plans can also be analyzed.

After declining between 1979 and 1983, the proportion of workers employed by firms offering an employer- or union-sponsored pension plan rebounded slightly between 1983 and 1988—from 56.4 percent to 57.6 percent. The increase appears to be occurring in small firms: the proportion of workers employed in firms with between 25 and 99 employees which sponsored pension plans increased from about 41 to over 44 percent during the period (Table 16).

However, actual retirement plan coverage declined from 48.3 to 45.6 percent between 1979 and 1983, and continued on down to 43.2 percent between 1983 and 1988; decreases occurred across all firm sizes.

Retirement plan coverage increases with firm size. In 1988, pension coverage ranged from 12 percent of workers in the smallest firms (fewer than 25 employees) to 65 percent in large firms (500 or more employees) (Chart 15). Between 1979 and 1983, pension coverage in small firms with fewer than 100 employees declined proportionately more than in large firms. Between 1983 and 1988, coverage in small firms declined proportionately less, from 26.2 to 24.9 percent, compared with a drop from 72.1 to 65.0 percent in large firms.

Workers in small firms are less likely to participate in an employer- or union-sponsored plan than workers in large firms, largely because of the differences in the mix of workers. Workers more commonly employed in small firms include younger workers, minorities, immigrants, women, part-time workers, and workers who frequently change jobs. Younger workers are more likely to prefer higher wages to participating in a pension plan. Employer plans are less likely to provide significant retirement benefits to intermittent workers, workers who change jobs frequently, have short careers, or work part-time or for very low pay.[58]

Women are less likely than men to work for a firm which offers a pension plan, regardless of the firm's size.

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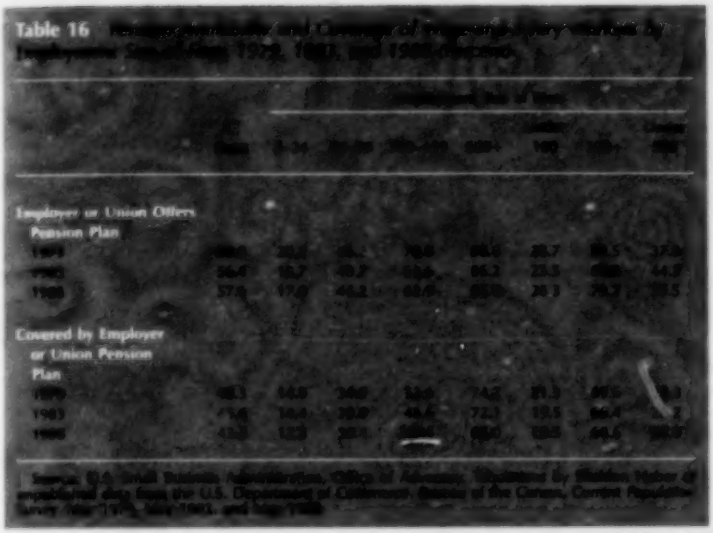
[58]The term "intermittent worker" has been applied to homemakers, young workers, and semi-retired individuals who work intermittently, depending on job opportunities and family circumstances. For information on pension coverage of intermittent workers, see "Pension Coverage and Benefit Entitlement: New Findings from 1988," *Issue Brief* 94 (Washington, D.C.: Employee Benefit Research Institute, September 1989), 3.

Table 16



In fact, male workers are about equally likely to choose firms offering pension coverage, whether they work in small firms (80 percent) or larger firms (82 percent). Over 80 percent of higher paid workers earning $10 or more an hour are covered by a pension in firms of all sizes compared to about 40 percent of workers earning less than $5 an hour.

The most common reason given by employees in 1988 for their ineligibility for pension coverage was that they were new employees (Table 17 and Chart 16). Almost half—over 44 percent—of all ineligible workers cite this as the reason.

About one-fifth of workers in firms of all sizes indicated they were ineligible because they were either part-time or seasonal workers. Another fifth indicated they chose not to belong; a smaller proportion of workers in small firms cited this as a reason—18.5 percent compared to 24.2 percent of workers in large firms.

In 1988, workers in large firms with more than 500 employers were more likely to have an employer who offered a pension plan, profit sharing, or stock plan than workers in small firms. Over 86 percent of workers in

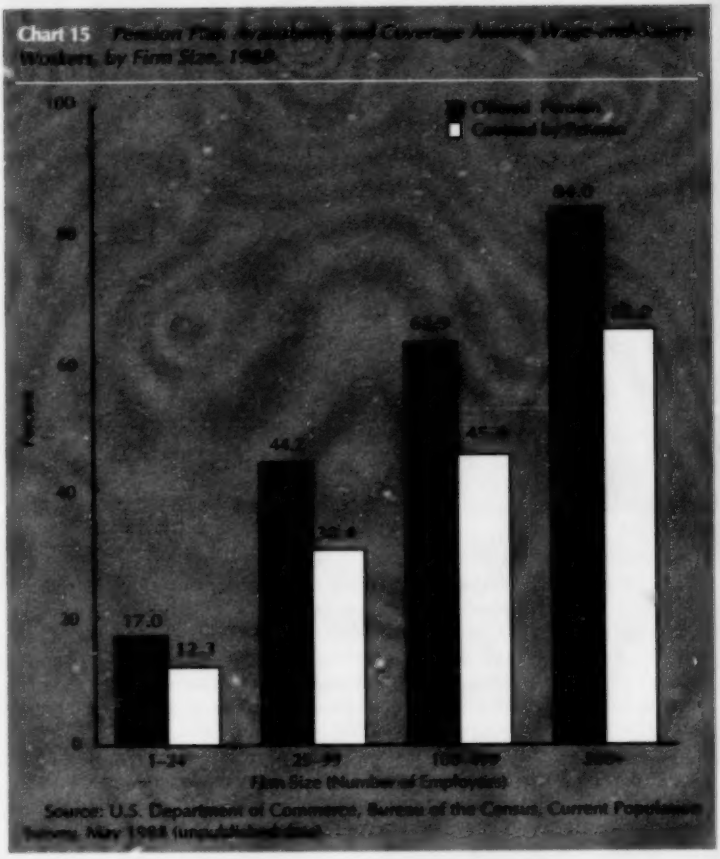
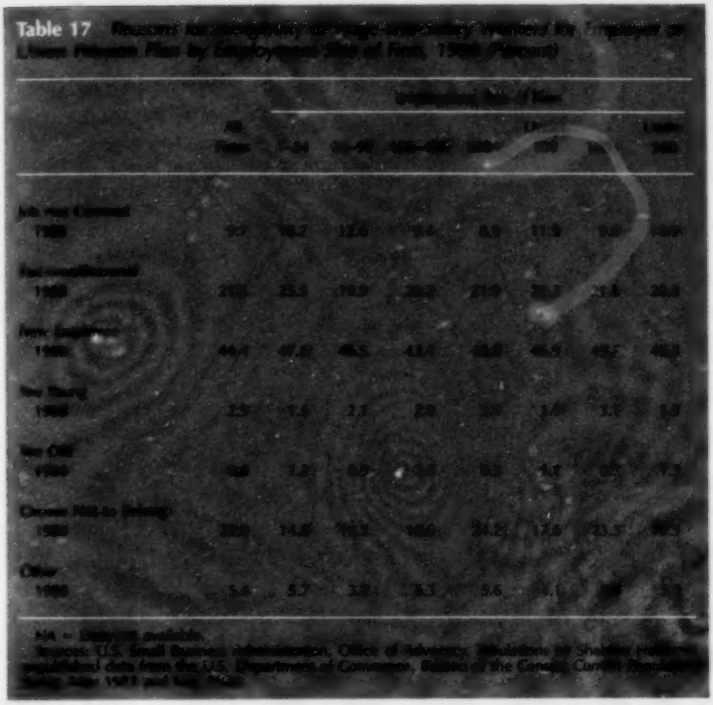


Chart 15 *Pension Plan Availability and Coverage Among Wage-and-Salary Workers, by Firm Size, 1988*

Source: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1988 (unpublished data).

large firms had at least one of these retirement options, compared to about 38 percent in small firms (Table 18). About equal proportions of workers in small and large firms were offered profit-sharing or stock plans. Four percent of workers in large firms had profit-sharing or stock

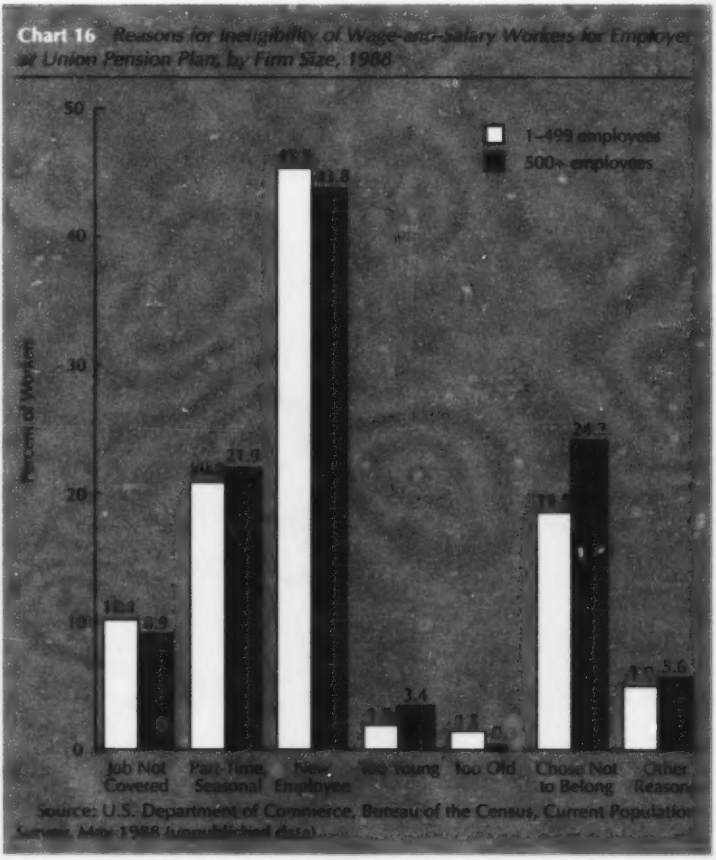


plans compared with 3.7 percent of workers in small firms.[59]

Workers in small firms that did offer retirement plans were more likely to be covered by profit-sharing or stock

[59]For an analysis of the effects of profit sharing on reducing unemployment, see James Chelius and Robert S. Smith, *Profit Sharing and Employment Stability*, report no. PB90 171463, prepared by the National Foundation for Unemployment Compensation and Workers' Compensation for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1990). Additional analysis of profit-sharing plans is reported by James Bell, *Coverage, Characteristics, Administration, and Costs of Pension and Health Care Benefits in Small Businesses*, report no. PB84 182708, prepared by James Bell Associates for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1984).

Chart 16 *Reasons for Ineligibility of Wage-and-Salary Workers for Employer or Union Pension Plan, by Firm Size, 1988*



Source: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1988 (unpublished data).

plans than workers in larger firms—69 percent versus 61 percent. However, workers in large firms were more likely to be covered by a pension plan if offered—77 percent compared with about 72 percent in small firms (Table 18). Workers in large firms were much more likely to have defined benefit plans, where benefits are based on years of service and earnings. Workers in small firms were almost twice as likely as workers in large firms to

Table 18 *Availability and Coverage by Employer or Union-Provided Pension, Profit-Sharing or Stock Plan[1] of Wage-and-Salary Workers by Employment Size of Firm, 1988 (Percent)*

	All Firms	Employment Size of Firm						
		1–24	25–99	100–499	500+	Under 100	100+	Under 500
Employer Offers								
Pension Plan	57.6	17.0	44.2	62.9	84.0	26.3	79.2	35.3
Profit-Sharing or Stock Plan	3.8	2.2	4.9	5.4	4.0	2.1	4.3	3.7
Retirement Plan[2]	59.7	18.7	47.2	65.9	86.1	28.6	81.5	37.7
Covered by Employer if Offered								
Pension Plan	76.1	74.5	70.0	73.4	77.8	71.9	77.1	72.6
Profit-Sharing or or Stock Plan	65.0	72.2	66.3	69.3	60.6	69.0	63.0	69.1
Retirement Plan[2]	75.6	74.3	69.6	73.1	77.0	71.6	76.3	72.2

[1]Assumes that stock or profit-sharing plans are not offered if a pension plan is offered.
[2]Includes pension or profit-sharing or stock plan.
Source: U.S. Small Business Administration, Office of Advocacy, Tabulations by Sheldon Haber of unpublished data from the U.S. Department of Commerce, Bureau of the Census, Current Population Survey, May 1988.

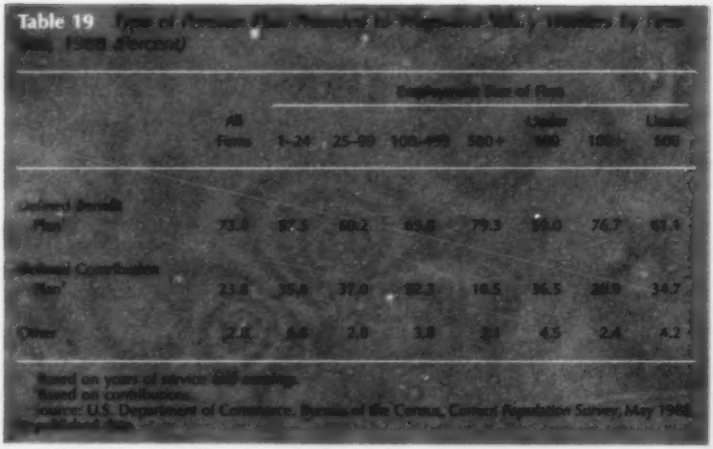
have a defined contribution plan, where benefits are based on contributions (Table 19).[60]

In 1974, the Employee Retirement Income Security Act (ERISA) established Individual Retirement Accounts (IRAs) to allow workers not covered by employer pension plans to set aside tax-deferred income for retirement.[61] The 1981 Economic Recovery Tax Act (ERTA) extended IRAs to all workers. The Tax Reform Act of 1986 restricted the deductibility of contributions to IRAs by workers over cer-

[60]For a discussion of recent trends in pension plan formation and termination by plan type, see James Bell Associates, "Cost and Impact of Federal Regulation," Chapter 3.

[61]The Revenue Act of 1978 established "simplified employee pensions" (SEPs), which are similar to IRAs and provide individual accounts for employees. However, contribution limits are higher (currently $30,000) than for IRAs, and contributions are generally provided by the employer. The Tax Reform Act of 1986 established a salary reduction feature for SEPs maintained by employers with 25 or fewer employees. For information on SEPs, see *Simplified Employee Pensions: What Small Businesses Need to Know* (Washington, D.C.: U.S. Government Printing Office, 1988).

Table 19



tain earnings thresholds who participate in employer plans.

The change in regulations affecting IRAs has significantly affected the proportion of workers with IRAs. In 1979, 4 percent of all workers indicated they had an IRA. By 1983, 17.5 percent of workers had IRAs. In 1988, 12.5 percent of all workers contributed to an IRA in the previous year.[62] It appears that the proportion of workers with IRAs has declined since 1983 as a result of the Tax Reform Act of 1986.

Before 1983, workers in small firms were more likely than workers in large firms to have IRAs, primarily because a greater proportion of large firm workers were covered by employer-sponsored pension plans and were therefore ineligible for IRAs. By 1983, two years after the change in IRA eligibility rules, more workers had IRAs, and the proportion of workers in large firms with IRAs was greater than in small firms—19.3 percent versus 15.1 percent. It appears that once they were eligible to invest in IRAs, higher paid workers were more likely to do so than lower paid workers, who tended to be employed in small firms.

[62]The 1988 CPS does not contain information about whether a worker had an IRA—it only contains information about whether a worker contributed to an IRA in the previous year (1987).

By 1988, the trend had reversed itself, and small firm workers were again more likely to have contributed to an IRA—13.4 percent compared with 11.9 percent of large firm workers. The shift again reflects small businesses' tendency to hire more low-wage workers, who qualify for tax-deductible IRA contributions if they earn less than $50,000. It also reflects the fact that small employers are less likely to provide a pension plan for their workers; these workers must therefore provide for retirement on their own.

Workers in small firms are much less likely than their counterparts in large firms to work for an employer who offers a salary reduction plan (401(K) or 403(b)). About 12 percent of workers in firms with fewer than 500 workers are offered a salary reduction plan, compared with over 43 percent in large firms. Large employers are more likely to contribute to such a plan than small employers.

Pension coverage for workers in small businesses remains significantly lower than for workers in large businesses. A step toward increasing coverage in small firms might be to reduce the administrative costs of providing retirement plans and to streamline regulations so that small employers will have greater flexibility in designing benefit packages that meet the needs of a diverse work force.

Small Business and Mandated Leave Policies

Research to assess the impact of mandated leave policies on small business is being undertaken by the SBA's Office of Advocacy. An employee leave survey was conducted to investigate businesses' existing leave policies, as well as their methods of compensating for absent employees.[61] The research was designed to illuminate the likely effects of various proposals to mandate leave policies on businesses. Preliminary findings indicate that mandated leave policies can affect the labor market, particularly for small firms and their employees. To the extent that proposed leave policies differ from current business practices gov-

[61]The survey covered 1,760 firms randomly chosen from the Small Business Data Base. Firms employing only members of the same family were excluded. The survey was conducted in November and December 1988; information was provided for several size classes of firms, and for employees who were classified as managers or nonmanagers. Eileen Trzcinski and William Alpert, "Findings from the U.S. Small Business Administration Employee Leave Survey" forthcoming report to the U.S. Small Business Administration, Office of Advocacy, under award no. SBA-2057-AER-87, December 1989).

erning the length of leave allowed, the eligibility of part-time workers, the maintenance of health insurance benefits, and other factors, labor costs will rise and adjustments will be made.

Job guarantee provisions are a central element of mandated parental leave proposals. Nationwide, the single most common factor in all legislation is to ensure that working parents do not lose their jobs because of pregnancy, childbirth, and childrearing responsibilities.

The existence of some formal specific leave policy varies directly with firm size (Table 20).[64] While 21.1 percent of the smallest firms surveyed had no disability policy of any sort, only 2.7 percent of the firms with 100 or more employees had no such plan in force. Fifteen employees appears to be an important threshold: firms with fewer than 15 employees were much less likely to provide maternity leave with a job guarantee, but no appreciable difference was apparent among the larger firms.

One important issue in the leave debate concerns how firms will handle the work of leave-takers. The leave survey asked employers to describe how they have handled the work of "their most recent leave-taking employee." Six alternatives were offered, including hiring a temporary replacement, rerouting work to others, sending the work home with the leave-taker, and filling the leave-taker's position (Table 21).

The most popular method for handling the work of employees on leave is to reroute urgent work and to hold less pressing work until the leave-taker returns. Between 75 and 80 percent of all the firms used this technique for handling the work of nonmanagers. Over 77 percent of the smallest (1–15 employees) firms rerouted the urgent work and held the rest for the leave-takers.

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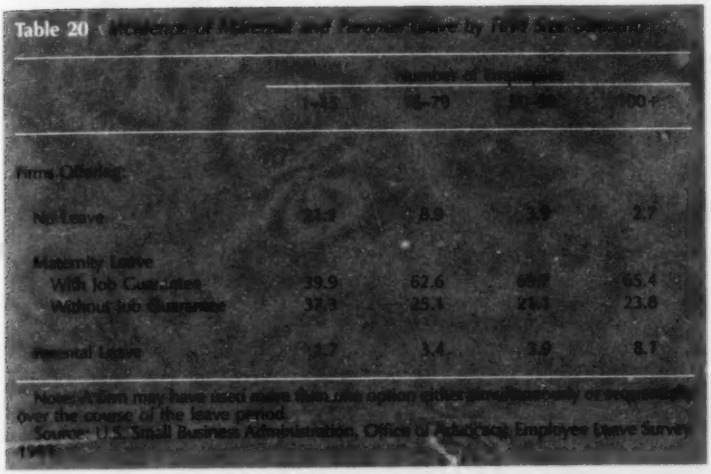
[64]In this classification, "no leave" means that the firm offers no disability leave for pregnancy and childbirth-related disabilities and no infant care. "Maternity leave" means that the firm provides leave for pregnancy and childbirth-related disabilities, but that it does not provide any infant care leave. Maternity leave may be provided through paid sick leave, sickness and accident insurance, unpaid sick leave, or a separate maternity leave policy. "Maternity leave, no guarantee" indicates that the firm does not guarantee employees the same or a comparable job upon returning from a leave for illness, disability, pregnancy, or childbirth. "Maternity leave, guarantee" means that the firm guarantees employees the same or a comparable job upon returning from leave. The classification "parental leave" means that the firm provides leave both for pregnancy and childbirth-related disabilities and for infant care.

Table 20



Routine rerouting of work to others in the same department or work area was the second most utilized technique. The smallest firms had less flexibility to pursue this option. The smallest firms were most likely to fill a leave taking manager's position and transfer the leave-taker to a new position upon return.

Statistical analysis of the survey shows that firm size has the greatest effect on the use of temporary replacements. Firms with fewer than 100 employees are significantly less likely to use either internal or external temporary replacements than are the largest firms. External temporary replacements cost more than the other alternatives; this may account for the less frequent use of this alternative by small firms. In order to use internal temporary replacements, a firm must have enough employees so that it can reallocate the work—a condition less likely to occur in small firms.

Differences among industries were also uncovered in the firm's choice of leave adjustment options. Manufacturing firms are more likely to opt for a work rerouting strategy, while service industry firms are most likely to secure temporary replacements for workers on leave.

Some mandated leave proposals assure workers leave to care for sick children and ailing parents. The leave survey investigated current business practices. Specifically, it asked firms to note whether paid sick leave, vacation

Table 21 Options Used by Firms to Handle the Work Usually Performed by a Leave-Taker during the Most Recent Leave, by Firm Size and Managerial Status (Percent)

	Employment Size of Firm					
	50-99		100-499		500+	
	Nonmanagers	Managers	Nonmanagers	Managers	Nonmanagers	Managers
Work rerouted to others within the department	67.9	58.1	77.4	76.9	87.9	81.8
Urgent work rerouted, rest held over until leave-taker's return	79.5	77.3	79.1	96.2	75.0	87.5
Temporary replacements retained from within the company	30.8	22.7	38.1	7.7	43.4	33.3
Temporary replacement is hired from outside the company	48.6	45.5	60.0	38.5	69.8	43.8
Work sent home to leave-taker	15.4	36.4	9.5	23.1	36.0	25.0
Position filled, leave-taker transferred to new position	11.8	31.8	2.0	7.7	15.1	10.4

Note: A firm may have used more than one option either simultaneously or sequentially over the course of the leave period.

Source: U.S. Small Business Administration, Office of Advocacy, Employee Leave Survey, 1995.

time, or any other leave can be used by management or nonmanagement employees to care for their children or their parents who are ill (Tables 22 and 23).[65]

Generally, the policy of allowing leave to be used to care for sick children and ailing parents varies directly with firm size. Vacation time is used most frequently by managers and nonmanagers alike to fulfill these family obligations. Even in the smallest firm size category, between 40 and 45 percent of the employers surveyed allow the use of some form of leave for these purposes. Typically, vacation leave is provided to allow workers to "recharge" themselves and to be more productive long-term employees to the firm. It seems clear that employers have little control over how vacations are spent, and attempts to monitor the use of vacation time are likely to be expensive and counterproductive.

Another critical aspect of mandated leave proposals is the conditions under which the leave-taker may return to work (Table 24). Will the employee be guaranteed the same job or be given a comparable one? Do leave-takers retain their seniority rights? Are employers required to maintain health insurance coverage at the level at which it would have been paid had the employee not taken leave?

Job guarantees, maintenance of seniority, and health insurance coverage are more frequently provided to managers and nonmanagers alike in larger firms. Job guarantees are the most common arrangement and seniority rights are the least common.

Firms do offer workers some job and position protection during the time they are on leave. These protections are limited, especially in smaller firms, and mandating such protections in smaller businesses would have a significant effect on labor-management relations.

Employers in firms of all sizes recognize that disability leave is an important benefit to offer if they are to attract and retain productive employees. Preliminary findings from the survey of current employment practices among firms of various sizes indicate that more than 90 percent of firms with more than 15 employees and almost 80 percent of even the smallest firms with fewer than 15 employees already have some kind of disability leave policy. Moreover, some two-thirds of firms with more than 15 workers and 40 percent of firms with fewer than 15

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[65]It is not known whether such leave was discretionary or whether it contained job guarantees.

Table 22 *Types of Leave Taken by Employees to Care for Ailing Parents, by Size of Employer's Firm (Percent)*

	Employment Size of Firm							
	1–19		20–99		100–499		500+	
	Managers (N=965)	Nonmanagers (N=988)	Managers (N=277)	Nonmanagers (N=377)	Managers (N=67)	Nonmanagers (N=67)	Managers (N=167)	Nonmanagers (N=167)
Sick Leave	16.6	14.6	27.4	26.6	43.8	49.3	49.1	38.6
Vacation	42.3	43.5	68.4	67.2	77.6	78.1	78.3	78.3
Other Leave	5.8	4.8	11.2	10.5	15.9	16.9	30.3	28.3
Sick, Vacation and/or Other Leave	45.2	49.0	73.6	71.6	80.8	82.2	86.2	85.3

N = Number of observations.
Note: These percentages include discretionary and nondiscretionary leaves and leaves with and without job guarantees.
Source: U.S. Small Business Administration, Office of Advocacy, Employer Leave Survey, 1988.

Table 23 Types of Leave Taken by Employees to Care for Sick Children, by Size of Employer's Firm (Percent)

	Employment Size of Firm							
	1-11		12-49		50-99		100+	
	Managers (N=570)	Nonmanagers (N=984)	Managers (N=[illegible])	Nonmanagers (N=281)	Managers (N=[illegible])	Nonmanagers (N=67)	Managers (N=168)	Nonmanagers (N=167)
Sick Leave	18.6	18.7	29.5	29.2	47.8	[illegible]	46.4	[illegible]
Vacation	48.2	48.0	68.3	68.1	[illegible]	[illegible]	78.6	78.4
Other Leave	6.3	6.5	11.9	10.8	[illegible]	[illegible]	32.3	32.3
Sick, Vacation and/or Other Leave	47.9	51.0	73.2	[illegible]	85.1	[illegible]	88.0	[illegible]

N is Number of observations.
Note: These percentages include discretionary and nondiscretionary leaves and leaves with and without job guarantees.
Source: U.S. Small Business Administration, Office of Advocacy, Employer Leave Survey, 1988.

Table 24 *Incidence of Leave with Benefits and Guarantees by Type of Leave and Firm Size (Percent)*

	Employment Size of Firm							
	1–19		20–49		50–99		100+	
	Managers (N=1,025)	Nonmanagers (N=1,041)	Managers (N=311)	Nonmanagers (N=306)	Managers (N=75)	Nonmanagers (N=73)	Managers (N=184)	Nonmanagers (N=181)
Paid Sick Leave								
Job Guarantee	24.6	24.0	47.6	45.1	59.2	58.9	62.5	58.6
Seniority Guarantee	19.5	19.3	30.2	29.8	43.3	44.4	45.3	44.6
Employer Continues to Pay Health	20.7	20.4	38.2	36.7	53.0	51.4	41.9	40.9
Unpaid Sick Leave								
Job Guarantee	59.6	42.3	62.2	50.6	69.2	56.8	64.3	61.3
Seniority Guarantee	30.7	31.6	38.7	38.3	52.6	48.7	44.8	44.1
Employer Continues to Pay Health	26.3	25.8	47.2	43.9	61.8	57.9	43.7	39.6
Separate Maternity Leave								
Job Guarantee	4.7	4.9	12.7	12.5	19.7	18.7	16.8	15.9
Seniority Guarantee	4.1	4.2	7.8	7.6	13.3	12.2	10.9	11.0
Employer Continues to Pay Health	3.8	3.9	11.2	10.1	15.8	14.7	11.4	10.9

N = Number of observations.
Note: These percentages include discretionary and nondiscretionary leaves and leaves with and without job guarantees.
Source: U.S. Small Business Administration, Office of Advocacy, Employee Leave Survey, 1989.

workers voluntarily provide maternity leave with a job guarantee.

However, the findings also indicate that legislative efforts to require firms to provide specific types of family and parental leave will have major impacts on the structure of employee benefit packages offered by U.S. firms, particularly small firms, by undermining the flexibility employers and employees have in negotiating benefit packages.

Conclusion

Small businesses continue to play an important role in the economy, generating innovations, employment, and income in times of both economic expansion and contraction. As the long economic expansion that began in 1982 showed signs of slowing in 1989, small-business-dominated industries continued to create new jobs at a faster rate than the industries dominated by their larger counterparts.

Small businesses contribute in important ways to the diversity, flexibility, and economic growth of the American economy. Yet the very nature of small firms and the flexible work forces they employ means that they frequently face higher costs and more procedural obstacles in providing their employees the health, retirement, and leave benefits offered by their larger counterparts.

Appendix **A**

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Table A.2	*Business Income Tax Returns by Receipt Size of Business for Selected Years, 1980–1986*
Table A.3	*Establishments, Enterprises, and Employment by Selected Size Class, SBA Region, and State, 1986*
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Table A.1 *Sources of GNP Growth, 1988–1989 (Billions of 1982 Dollars)*

	Annual Average		Dollar Change	Percent Change
	1988	1989	1988–1989	1988–1989
GNP	4,024.4	4,144.1	119.7	3.0
Personal Consumption	2,589.4	2,660.6	71.2	2.7
Gross Private Domestic Investment	715.8	720.7	4.9	0.8
Nonresidential	493.8	510.3	16.5	3.3
Residential	194.1	188.5	-5.6	-2.9
Change in Business Inventories	27.9	21.9	-6.0	-21.5
Net Exports	-74.9	-52.6	22.3	-29.8
Exports	530.1	589.2	59.1	11.1
Imports	605.0	641.8	36.8	6.1
Government Purchases	785.1	806.4	21.3	2.7
Federal	328.9	337.1	8.2	2.5
State and Local	456.2	469.3	13.1	2.9

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from figures released by the U.S. Department of Commerce, Bureau of Economic Analysis, Commerce News, press release, February 28, 1990.

Table A.2 *Business Income Tax Returns by Receipt Size of Business for Selected Years, 1980–1986 (Thousands)*

Receipt Size of Business[1]	Number of Returns Processed			
	1980	1984	1985	1986
Total Returns	13,820.3	16,076.3	16,919.4	17,632.2
Corporations, Total	2,710.6	3,170.7	3,277.3	3,428.6
Under $25,000	989.7	1,088.1	1,110.8	1,182.3
$25,000-$49,999	207.7	212.5	226.6	244.2
$50,000-$99,999	322.7	338.7	339.2	345.4
$100,000-$249,999	598.4	613.2	626.5	630.6
$250,000-$499,999	367.3	468.4	486.2	510.5
$500,000-$999,999	279.8	344.8	352.4	370.4
$1,000,000 or more	417.7	505.0	537.6	582.8
Partnerships, Total[2]	1,379.7	1,643.6	1,713.6	1,809.9
Under $25,000	926.0	1,109.4	1,140.1	1,198.6
$25,000-49,999	187.8	197.3	195.5	182.9
$50,000-$99,999	183.6	200.5	199.8	204.5
$100,000-$249,999	155.2	162.8	160.1	184.0
$250,000-$499,999	135.6	149.9	165.5	165.1
$500,000-$999,999	48.1	60.6	68.8	69.1
$1,000,000 or more	37.4	52.1	56.0	60.7
Nonfarm Sole Proprietorships, Total	9,730.0	11,262.0	11,928.5	12,393.7
Under $2,500	2,788.1	2,908.9	3,087.5	3,170.4
$2,500-$4,999	1,138.6	1,224.4	1,414.6	1,454.1
$5,000-$9,999	1,282.9	1,482.2	1,603.6	1,666.0
$10,000-$24,999	1,711.8	2,036.4	2,104.6	2,175.3
$25,000-$49,999	1,099.1	1,284.5	1,353.9	1,466.9
$50,000-$99,999	835.6	1,061.3	1,094.3	1,116.3
$100,000-$499,999	795.8	984.4	1,060.2	1,140.9
$500,000-$999,999	73.9	84.1	88.5	95.4
$1,000,000 or more	29.2	36.8	40.7	37.7

NA = Not available.

[1] Size classes are based on the sum of business receipts—that is, gross amounts from sales and operations, and gross rents for all industries except for the finance, insurance, and real estate industries. For the latter industries, positive net rental income was added to total receipts, which is the sum of business receipts and investment income. For partnerships, see also note 3, below.

[2] Includes returns with no receipts as defined in footnote 1.

[3] In 1981, the method of calculating total receipts for partnerships was changed by the IRS. Beginning with 1981 data, total receipts include, in part, only the net income or loss from farming and rentals. Previously, total receipts included the gross receipts from farming and rentals and, if rental receipts were the principal source of such receipts, they were treated as "business receipts" for the statistics. To help minimize the breaks in comparability caused by this change in statistical treatment of farm and rental income, an effort was made starting with 1981 to include rental income net of farm gross receipts in the receipts used for the size distribution.

Source: U. S. Department of the Treasury, Internal Revenue Service, *SOI Bulletin* 7, no. 4 (Spring 1988), 79, 80, and Summer 1989, 96.

Table A.3 *Establishments, Enterprises, and Employment by Selected Size Class, SBA Region, and State, 1988*

Region/State	Number of Establishments[1]		Number of Enterprises[2]		Employment[3]	
	Total	<500	Total	<500	Total	<500
U.S. Total	**5,020,520**	**4,479,528**	**3,805,982**	**3,791,344**	**91,181,040**	**45,300,965**
Region I	**273,673**	**245,830**	**213,592**	**212,516**	**5,815,790**	**2,805,204**
Connecticut	73,828	66,478	54,436	54,198	1,583,547	769,555
Maine	22,208	20,201	17,396	17,338	376,770	204,031
Massachusetts	123,934	109,808	94,319	93,796	2,779,521	1,313,888
New Hampshire	21,829	20,136	17,283	17,228	392,921	226,831
Rhode Island	19,941	18,137	16,283	16,201	407,052	223,768
Vermont	11,933	11,270	9,873	9,851	175,979	113,952
Region II	**568,675**	**510,315**	**444,393**	**442,008**	**10,981,723**	**5,472,140**
New Jersey	176,712	161,307	144,908	144,243	3,207,548	1,726,172
New York	393,963	355,008	309,485	307,765	7,474,508	3,745,968
Region III	**474,744**	**418,177**	**354,269**	**352,638**	**9,413,928**	**4,549,014**
Delaware	17,567	16,452	14,830	14,784	294,475	170,899
District of Columbia	17,933	14,372	11,857	11,538	614,943	203,674
Maryland	86,012	78,946	64,162	63,930	1,644,990	890,233
Pennsylvania	228,232	202,624	173,467	172,563	4,406,810	2,184,053
Virginia	103,570	90,208	75,941	75,441	2,003,083	963,233
West Virginia	27,050	24,375	20,083	20,380	460,019	297,915
Region IV	**804,746**	**708,669**	**597,928**	**595,821**	**14,711,220**	**7,187,657**
Alabama	63,917	54,199	46,652	46,454	1,237,[illegible]	580,358
Florida	261,923	235,676	200,579	200,019	4,123,320	2,270,902
Georgia	122,329	104,331	86,398	86,021	2,349,521	1,074,083
Kentucky	64,357	57,881	48,344	48,208	1,083,064	541,206
Mississippi	41,345	36,987	31,328	31,222	711,630	364,990
North Carolina	110,987	95,172	79,280	79,403	2,366,938	1,056,354
South Carolina	54,988	48,393	40,922	40,785	1,064,677	496,584
Tennessee	86,899	75,930	63,965	63,709	1,774,732	793,220
Region V	**926,513**	**829,804**	**704,148**	**701,193**	**17,824,248**	**8,556,618**
Illinois	243,511	219,529	189,811	188,164	4,785,656	2,273,011
Indiana	99,840	89,377	74,220	73,939	1,966,145	940,920
Michigan	175,649	159,662	135,858	135,366	3,246,045	1,597,872
Minnesota	86,323	76,446	74,776	74,402	1,751,969	874,195
Ohio	209,548	183,681	154,661	153,958	4,305,243	1,922,135
Wisconsin	100,584	91,209	77,972	77,664	1,769,790	948,279

Table A.3 Establishments, Enterprises, and Employment by Selected Size Class, SBA Region, and State, 1986—Continued

Region/State	Number of Establishments[1]		Number of Enterprises[2]		Employment[3]	
	Total	<500	Total	<500	Total	<500
Region VI	616,020	548,098	458,196	456,854	10,123,431	5,149,891
Arkansas	48,586	44,036	34,280	34,004	688,627	391,264
Louisiana	84,495	75,578	64,204	64,084	1,381,271	731,802
New Mexico	26,765	24,242	20,716	20,706	380,744	223,345
Oklahoma	73,437	66,972	56,637	56,517	1,019,293	580,901
Texas	383,067	339,991	281,729	280,793	6,653,496	3,254,579
Region VII	269,605	242,040	204,520	203,843	4,321,380	2,201,495
Iowa	59,793	53,922	47,231	47,098	885,585	478,474
Kansas	60,611	54,756	45,755	45,644	906,133	486,782
Missouri	109,453	97,093	81,484	81,146	1,934,648	938,085
Nebraska	39,748	36,069	30,050	29,960	594,214	298,145
Region VIII	184,784	167,603	144,548	144,243	2,686,708	1,457,504
Colorado	94,725	85,584	68,809	68,644	1,502,566	833,044
Montana	22,221	20,737	18,369	18,349	268,319	145,291
North Dakota	15,662	14,449	12,486	12,467	184,499	125,666
South Dakota	16,163	15,103	13,142	13,125	191,450	127,957
Utah	33,540	29,872	25,048	24,975	537,732	272,296
Wyoming	13,073	11,858	10,294	10,283	144,082	92,950
Region IX	698,897	624,198	526,161	524,377	12,534,841	6,352,099
Arizona	63,891	56,075	47,642	47,512	1,091,714	569,978
California	593,337	531,231	446,424	446,916	10,688,193	5,401,473
Hawaii	21,755	19,310	15,787	15,718	364,163	199,882
Nevada	19,834	17,582	14,908	14,831	410,771	180,768
Region X	202,863	184,794	158,227	157,851	2,767,771	1,569,343
Alaska	14,264	13,176	11,188	11,176	253,807	166,105
Idaho	22,259	20,322	17,495	17,465	284,158	164,372
Oregon	64,276	58,522	50,154	50,027	907,285	512,090
Washington	102,064	92,574	79,389	79,183	1,321,321	791,866

[1] Represents the total number of establishments and those in small firms with fewer than 500 employees, respectively.

[2] Represents the total number of enterprises and small firm enterprises with fewer than 500 employees, respectively.

[3] Represents total employment and employment in firms with fewer than 500 employees, respectively.

Note: Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choices for static data, including enterprise, establishment, and employment control totals and distributions by firm size. For a full discussion of the USEEM file, see "The Linked 1976–1986 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 8, 1988.

Table A.4 Enterprises by Enterprise Size and Major Industry, 1986

Industry	Total	Employment Size of Enterprise				
		[illegible]	5-9	10-19	20-99	100-499
Total United States						
Enterprises	3,805,983	1,967,806	881,468	469,720	301,477	99,672
Percent	100.00	51.70	23.16	12.13	7.92	2.62
Agriculture						
Enterprises	106,894	64,197	24,899	9,248	6,986	1,184
Percent	100.00	60.06	23.29	8.65	6.54	1.11
Mining						
Enterprises	35,841	16,874	7,607	4,912	5,037	940
Percent	100.00	47.08	21.22	13.70	14.05	2.62
Construction						
Enterprises	527,058	223,319	103,303	55,289	31,788	8,470
Percent	100.00	42.37	19.60	10.49	6.03	1.61
Manufacturing						
Enterprises	359,039	114,984	83,694	62,491	53,789	21,948
Percent	100.00	32.02	23.31	17.40	14.98	6.11
Transportation, Communications, and Public Utilities						
Enterprises	137,342	57,659	33,680	20,936	15,049	4,703
Percent	100.00	41.98	24.52	15.24	10.96	3.42
Wholesale Trade						
Enterprises	419,443	198,474	113,823	59,729	33,302	8,884
Percent	100.00	47.32	27.14	14.24	7.94	2.11
Retail Trade						
Enterprises	1,046,302	556,775	261,988	119,339	73,786	21,855
Percent	100.00	53.21	25.04	11.41	7.05	2.09
Finance, Insurance, and Real Estate						
Enterprises	371,863	153,768	94,605	38,182	28,037	8,684
Percent	100.00	41.35	25.44	10.27	7.54	2.34
Services						
Enterprises	806,562	480,193	197,922	106,303	66,252	25,088
Percent	100.00	59.54	24.54	13.18	8.21	3.11

Note: Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including enterprise, establishment, and employment control totals and distributions by firm size. For a full discussion of the USEEM file, see "The Linked 1976–1986 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 6, 1988.

3,719,737	71,607	3,791,344	7,205	5,833	793	807	14,638
97.73	1.88	99.62	0.19	0.15	0.02	0.02	0.38
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table A.5 Enterprises by Enterprise Size and Detailed Industry, 1986

SIC Code	Industry	Total	Employment Size of Firm			
			[illegible]	[illegible]	[illegible]	[illegible]
	U.S. Total	5,805,968	1,967,748	881,411	468,265	881,344
01	Agricultural Products, Crops	58,685	24,440	9,487	3,284	3,972
02	Agricultural Products, Livestock	70,279	32,289	5,856	1,898	765
07	Agricultural Services	82,465	36,138	9,671	4,194	2,850
08	Forestry	1,980	673	202	104	57
09	Fishing, Hunting, and Trapping	1,229	732	189	103	85
10	Metal Mining	980	488	208	98	86
11	Anthracite Mining	149	65	36	18	17
12	Bituminous Coal and Lignite	2,975	882	534	630	570
13	Oil and Gas Extraction	28,941	14,435	6,040	3,385	3,027
14	Nonmetallic Minerals, Except Fuels	2,899	894	738	388	497
15	General Building Contractors	198,404	127,689	32,498	16,633	6,896
16	Heavy Construction Contractors	32,859	18,102	7,498	5,032	3,689
17	Special Trade Contractors	394,910	182,599	62,958	37,791	19,079
20	Food and Kindred Products	37,355	4,167	3,870	3,938	2,882
21	Tobacco Manufactures	88	23	12	12	12
22	Textile Mill Products	7,863	3,983	1,351	1,163	1,407
23	Apparel and Other Textile Products	22,150	6,552	3,769	3,657	4,121
24	Lumber and Wood Products	36,498	9,686	6,268	4,779	3,914
25	Furniture and Fixtures	13,131	4,189	3,091	2,988	1,867
26	Paper and Allied Products	6,826	673	794	900	1,958
27	Printing and Publishing	60,708	24,417	12,029	9,448	6,882
28	Chemicals and Allied Products	11,882	2,749	2,914	2,376	1,844
29	Petroleum and Coal Products	1,452	388	392	254	238
30	Rubber and Misc. Plastics Products	12,094	3,730	3,384	2,238	2,442
31	Leather and Leather Products	2,064	1111	504	418	409
32	Stone, Clay, and Glass Products	13,869	4,986	3,380	2,564	2,119
33	Primary Metal Industries	6,187	1,112	1,160	1,150	1,388
34	Fabricated Metal Products	24,740	8,725	7,833	6,557	6,695
35	Machinery, Except Electrical	38,895	20,281	14,598	10,894	7,863
36	Electric and Electronic Equipment	18,857	4,904	3,803	3,349	3,396
37	Transportation Equipment	10,259	3,268	2,209	1,826	1,539
38	Instruments and Related Products	11,713	3,468	2,657	2,484	1,789
39	Misc. Manufacturing Industries	22,986	9,574	5,240	3,526	2,955
40	Railroad Transportation	285	43	65	43	42
41	Local and Interurban Passenger	9,889	2,822	1,993	1,829	1,902
42	Trucking and Warehousing	69,106	29,288	14,613	8,879	6,735
44	Water Transportation	6,659	3,270	1,410	840	823
45	Transportation by Air	5,805	2,547	1,448	888	471
46	Pipe Lines, Except Natural Gas	92	27	18	8	15
47	Transportation Services	24,337	9,315	6,363	3,602	1,662
48	Communications	10,871	2,262	2,443	1,976	1,909
49	Electric, Gas, and Sanitary Services	9,051	3,889	2,098	1,409	1,304
50	Wholesale Trade—Durable Goods	244,483	122,588	74,049	30,999	28,473
51	Wholesale Trade—Nondurable Goods	186,210	76,041	39,808	23,134	12,888
52	Building Materials and Garden Supplies	70,145	30,329	19,807	7,790	3,186
53	General Merchandise Stores	21,318	5,255	4,778	3,452	1,023
54	Food Stores	107,344	54,162	27,547	13,455	8,651
55	Automotive Dealers and Services	136,256	55,434	35,702	17,338	12,913
56	Apparel and Accessory Stores	100,831	70,119	23,968	7,308	3,042
57	Furniture and Home Furnishings Stores	112,365	71,514	26,898	9,274	3,987
58	Eating and Drinking Places	189,466	52,895	52,242	37,017	37,169

99,379	3,719,337	71,439	3,790,776	7,180	5,815	791	806	14,592
478	[illegible]	348	[illegible]	48	8	0	3	59
208	10,140	59	20,247	21	3	2	0	22
396	42,148	283	42,697	17	3	0	2	24
20	1,089	11	1,102	3	1	0	2	7
40	1,216	8	1,257	1	0	1	0	2
26	[illegible]	20	986	0	12	2	2	36
8	168	3	169	0	0	0	0	0
167	[illegible]	958	2,941	35	10	4	3	52
624	[illegible]	373	26,640	91	37	7	16	101
122	2,726	102	[illegible]	10	6	3	1	22
2,385	[illegible]	1,336	140,249	98	47	8	8	153
1,406	[illegible]	976	31,935	87	47	9	6	124
4,888	102,476	2,209	30,678	99	84	1	1	162
1,575	[illegible]	[illegible]	[illegible]	211	[illegible]	[illegible]	[illegible]	430
6	63	9	74	2	[illegible]	0	4	6
882	[illegible]	788	[illegible]	96	[illegible]	33	11	207
2,198	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	49	2	[illegible]
1,262	[illegible]	768	[illegible]	63	[illegible]	3	3	108
845	[illegible]	712	[illegible]	78	[illegible]	6	2	139
619	[illegible]	545	[illegible]	58	[illegible]	11	10	[illegible]
2,049	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
776	[illegible]	610	[illegible]	93	[illegible]	[illegible]	46	243
96	[illegible]	84	[illegible]	10	[illegible]	5	6	37
1,176	[illegible]	[illegible]	[illegible]	[illegible]	57	[illegible]	[illegible]	[illegible]
228	[illegible]	242	[illegible]	[illegible]	23	2	2	61
775	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
667	[illegible]	621	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2,999	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2,707	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1,512	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
613	[illegible]	636	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
727	[illegible]	645	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	211	22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
469	[illegible]	468	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2,894	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
207	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	79	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
424	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
995	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
545	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table A.5 *Enterprises by Enterprise Size and Detailed Industry, 1986—Continued*

SIC Code	Industry	Total	Employment Size of Firm			
			Total	0-9	10-19	20-49
89	Miscellaneous Retail	301,396	199,630	70,770	24,720	6,886
60	Banking	13,987	1,181	3,245	2,279	4,868
61	Credit Agencies Other Than Banks	18,489	6,680	4,513	2,038	2,547
62	Security, Commodity Brokers	11,078	5,588	2,688	1,332	827
63	Insurance Carriers	5,968	1,718	1,398	980	799
64	Insurance Agents, Brokers, and Services	36,378	17,287	10,478	5,109	2,531
65	Real Estate	174,230	113,080	31,587	15,646	9,219
66	Combined Real Estate, Insurance	1,049	493	388	158	68
67	Holdings, and Other Investments	12,389	7,887	2,857	1,049	661
70	Hotels and Other Lodging Places	37,749	19,199	6,882	4,439	3,734
72	Personal Services	100,978	62,118	23,185	9,667	4,265
73	Business Services	249,363	148,592	52,485	20,913	16,313
75	Auto Repair, Services, and Garages	102,648	64,591	20,648	8,942	3,817
76	Miscellaneous Repair Services	62,858	43,303	12,948	4,458	1,715
78	Motion Pictures	16,731	9,613	4,324	2,087	888
79	Amusement and Recreation Services	41,938	19,364	9,888	6,339	4,709
80	Health Services	86,749	34,481	16,081	11,491	6,885
81	Legal Services	29,672	11,998	7,424	5,073	3,309
82	Educational Services	20,354	4,371	2,756	3,227	3,753
83	Social Services	24,888	5,306	3,301	4,886	4,496
84	Museums, Botanical, Zoological Gardens	1,295	466	388	291	198
86	Membership Organizations	51,300	21,641	13,239	7,913	5,659
88	Private Households	183	123	58	2	2
89	Miscellaneous Services	38,999	20,887	10,888	6,674	5,446

Note: Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including enterprise, establishment, and employment current totals and distributions by firm size. For a full discussion of the USEEM file, see "The Linked 1976–1986 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, March 1988.

1,836	[illegible]	1,897	[illegible]	[illegible]	69	6	11	176
1,673	12,385	1,208	13,593	183	171	37	33	384
993	17,386	802	18,188	115	73	11	2	201
306	10,665	308	10,973	32	32	12	5	103
368	5,151	476	5,627	108	106	37	36	343
627	36,032	869	36,901	18	18	5	5	46
2,665	171,903	2,073	173,976	153	99	11	2	265
11	1,832	7	1,839	0	2	0	0	2
285	11,991	304	12,295	86	28	4	2	117
1,878	36,449	1,488	37,937	123	33	14	6	210
1,032	100,238	667	100,905	36	24	9	4	80
5,614	243,367	4,874	248,241	804	399	48	23	922
486	102,643	265	102,908	28	10	0	2	40
318	82,706	110	82,816	7	2	0	0	9
223	16,499	293	16,792	21	10	7	2	40
1,588	41,058	816	41,874	67	33	7	5	112
5,362	78,291	6,205	84,557	974	1,077	69	38	2,333
1,028	28,824	703	29,586	72	12	0	0	87
2,056	16,174	1,467	19,641	368	253	89	30	773
2,088	23,761	1,860	24,651	126	44	6	4	188
79	1,224	64	1,288	3	1	1	0	7
1,797	30,054	1,407	31,541	168	126	15	9	330
3	182	1	185	0	0	0	0	0
1,588	37,839	996	38,815	91	69	11	14	185

Table A.6 *Establishments by Enterprise Size and Major Industry, 1986*

Industry	Total	Employment Size of Enterprise 1–4	5–9	10–19	20–49	50–99	<100
Total United States							
Establishments	5,638,520	2,099,304	939,344	861,957	420,774	283,018	4,164,391
Percent	100.00	40.02	19.91	11.39	8.58	4.04	82.95
Agriculture							
Establishments	115,788	65,655	16,698	10,662	5,084	1,919	190,420
Percent	100.00	56.75	23.58	9.22	5.08	1.66	95.78
Mining							
Establishments	51,666	17,126	8,675	6,441	5,196	2,522	40,160
Percent	100.00	33.15	17.48	12.47	10.06	4.88	77.73
Construction							
Establishments	566,819	326,962	108,034	59,425	36,723	12,190	543,334
Percent	100.00	57.68	19.06	10.48	6.48	2.15	95.86
Manufacturing							
Establishments	491,740	117,579	88,854	69,202	65,099	32,621	373,335
Percent	100.00	23.91	18.07	14.07	13.23	6.63	75.92
Transportation, Communications, and Public Utilities							
Establishments	232,734	59,100	36,899	26,416	22,747	11,087	156,249
Percent	100.00	26.53	16.57	11.86	10.21	4.98	70.15
Wholesale Trade							
Establishments	576,491	204,195	125,529	75,387	57,010	25,752	487,873
Percent	100.00	35.42	21.77	13.08	9.89	4.47	84.63
Retail Trade							
Establishments	1,402,906	560,083	288,835	150,729	112,452	51,679	1,172,872
Percent	100.00	40.56	20.60	10.74	8.02	3.68	83.60
Finance, Insurance, and Real Estate							
Establishments	448,604	158,567	61,162	37,884	34,285	20,278	312,446
Percent	100.00	35.35	13.63	8.44	7.70	4.52	69.65
Services							
Establishments	1,143,880	491,037	214,358	125,800	91,128	44,979	967,302
Percent	100.00	42.93	18.74	11.00	7.97	3.93	84.56

Note: Establishments are classified by the employment size of the enterprise that owns them. Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including enterprise, establishment, and employment control totals and distributions by firm size. For a full discussion of the USEEM file, see "The Unbad 1976–1986 USEEM User's Guide." (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 6, 1988.

Employment Size of Enterprise						
100–199	<500	500–999	1000–4999	5000–9999	10,000 +	500 +
315,117	4,479,528	88,402	165,290	68,675	218,625	540,992
6.28	89.22	1.76	3.29	1.37	4.35	10.78
2,293	193,113	607	924	108	948	2,587
1.90	97.76	0.52	0.80	0.09	0.82	2.24
3,945	43,789	967	2,087	1,319	3,685	7,951
6.86	84.99	1.87	4.04	2.56	7.14	15.41
13,377	866,731	2,791	4,236	980	2,092	10,099
2.36	98.32	0.49	0.75	0.17	0.37	1.78
45,462	418,797	11,913	21,712	7,765	31,553	72,943
9.25	85.17	2.42	4.42	1.58	6.42	14.84
18,732	174,981	5,417	12,484	6,557	23,295	47,753
8.41	78.56	2.43	5.60	2.94	10.46	21.44
35,933	523,806	6,498	16,611	5,697	21,878	52,685
6.23	90.86	1.47	2.88	0.99	3.80	9.14
98,238	1,251,107	24,561	39,841	14,973	72,424	151,799
8.58	69.18	1.75	2.84	1.07	5.16	10.82
41,511	263,957	14,269	32,843	16,256	31,279	94,647
9.25	78.90	3.18	7.32	3.62	6.97	21.10
76,049	1,043,351	19,379	34,552	15,120	31,657	100,518
6.65	91.21	1.69	3.02	1.32	2.75	8.79

Table A.7 Establishments by Establishment Size and Major Industry, 1986

Industry	Total	Employment Size of Enterprise 1–4	5–9	10–19	20–49	50–99	<100
Total United States							
Establishments	5,020,520	2,362,430	1,091,635	730,242	532,804	171,157	4,888,268
Percent	100.00	47.06	21.74	14.55	10.61	3.41	97.37
Agriculture							
Establishments	115,980	70,750	26,141	9,853	6,551	1,509	114,852
Percent	100.00	61.18	22.56	8.56	5.66	1.30	99.27
Mining							
Establishments	51,666	23,371	10,397	7,683	6,571	2,043	49,065
Percent	100.00	45.23	19.93	14.87	12.72	3.88	94.71
Construction							
Establishments	566,810	342,859	107,966	59,261	41,822	10,417	562,175
Percent	100.00	60.49	19.05	10.46	7.38	1.84	99.18
Manufacturing							
Establishments	491,740	147,385	102,248	80,085	78,430	39,053	447,201
Percent	100.00	29.97	20.79	16.29	15.95	7.94	90.94
Transportation, Communications and Public Utilities							
Establishments	222,734	81,770	48,109	38,494	32,767	11,570	212,710
Percent	100.00	36.71	21.60	17.28	14.71	5.19	95.50
Wholesale Trade							
Establishments	576,491	262,121	151,826	99,086	47,202	10,607	573,742
Percent	100.00	45.47	26.34	17.19	8.19	1.84	99.00
Retail Trade							
Establishments	1,402,980	672,214	322,595	204,162	147,351	36,819	1,383,141
Percent	100.00	47.92	22.99	14.55	10.50	2.62	98.59
Finance, Insurance, and Real Estate							
Establishments	448,604	201,599	99,641	95,681	43,133	9,789	440,607
Percent	100.00	44.94	20.20	21.33	9.61	2.18	98.22
Services							
Establishments	1,143,869	560,321	241,902	135,899	129,127	49,456	1,106,694
Percent	100.00	48.98	20.27	11.88	11.29	4.32	96.75

Note: Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 Percent of full-time business activity, generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including enterprise, establishment, and employment control totals and distributions by firm size. For a full discussion of the USEEM file, see "The United 1976–1986 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 6, 1988.

Employment Size of Enterprise						
100–199	<500	500–999	1000–4999	5000–9999	10,000 +	500 +
116,078	3,004,366	9,871	5,825	380	108	16,154
2.31	99.68	0.20	0.12	0.01	0.00	0.32
778	115,431	54	17	1	0	69
0.67	99.94	0.04	0.01	0.00	0.00	0.06
1,448	51,413	143	106	4	0	253
2.80	99.51	0.28	0.21	0.01	0.00	0.49
4,426	566,401	180	83	6	0	209
0.78	99.96	0.03	0.01	0.00	0.00	0.04
30,046	488,547	4,065	2,199	667	62	6,493
5.74	93.68	0.63	0.45	0.08	0.01	1.32
8,784	221,494	730	462	28	12	1,240
3.94	99.44	0.33	0.21	0.01	0.01	0.56
5,357	576,000	288	94	6	4	392
0.93	99.93	0.05	0.02	0.00	0.00	0.07
10,855	1,401,997	706	191	8	2	909
1.34	99.94	0.05	0.01	0.00	0.00	0.06
6,566	447,373	298	487	32	4	1,231
1.46	99.73	0.16	0.11	0.01	0.00	0.27
31,617	1,136,511	3,630	2,216	99	24	5,380
2.78	99.53	0.32	0.19	0.01	0.00	0.47

Table A.8 *Change in the Number of Manufacturing Establishments by State, 1982–1987 (Percent)*

	All Establishments	Employment Size of Establishment	
		20+ Employees	0–19 Employees
United States	**3.0**	**3.3**	**2.4**
Alabama	5.7	6.0	5.3
Alaska	−4.0	7.3	−27.8
Arizona	21.9	18.4	32.2
Arkansas	2.4	8.3	4.7
California	4.9	3.3	8.5
Colorado	6.7	11.2	−5.9
Connecticut	0.6	3.1	−3.6
Delaware	7.0	7.3	6.5
District of Columbia	−5.1	−5.9	−2.4
Florida	13.6	14.1	12.3
Georgia	7.4	5.0	11.5
Hawaii	5.6	9.3	−5.9
Idaho	6.6	7.0	5.1
Illinois	−1.3	−2.7	0.9
Indiana	8.4	5.2	13.3
Iowa	−0.9	−2.8	2.9
Kansas	1.1	0.0	3.1
Kentucky	5.3	1.4	11.6
Louisiana	−7.3	−2.5	−17.3
Maine	7.9	12.5	−2.6
Maryland	9.5	10.9	6.8
Massachusetts	0.1	1.5	−2.2
Michigan	5.5	1.1	14.5
Minnesota	4.9	2.9	9.1
Mississippi	6.0	8.7	1.6
Missouri	3.5	2.8	4.8
Montana	13.8	15.5	4.5
Nebraska	−2.8	−4.2	−0.3
Nevada	14.5	8.9	35.6
New Hampshire	17.9	26.7	2.5
New Jersey	−4.6	−4.2	−5.1
New Mexico	8.1	12.4	−5.4
New York	−9.3	−8.5	−11.1
North Carolina	8.4	8.2	8.7
North Dakota	6.6	9.7	−2.8

Table A.8 *Change in the Number of Manufacturing Establishments by State, 1982–1987 (Percent)*—Continued

	All Establishments	Employment Size of Establishment: 20+ Employees	0–19 Employees
Ohio	3.3	2.7	5.2
Oklahoma	−10.2	−6.8	−18.3
Oregon	12.3	11.6	14.2
Pennsylvania	1.1	4.5	−3.6
Rhode Island	0.8	3.4	−4.5
South Carolina	8.0	6.8	9.7
South Dakota	1.7	−1.8	11.2
Tennessee	7.0	7.1	7.0
Texas	0.4	6.8	−11.7
Utah	6.4	6.4	6.6
Vermont	14.4	17.3	7.1
Virginia	10.2	10.6	9.4
Washington	12.5	11.8	14.4
West Virginia	−2.5	2.8	−13.1
Wisconsin	5.5	3.9	8.2
Wyoming	2.0	−5.7	42.0

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Commerce, Bureau of the Census, *1987 Census of Manufactures—United States Summary*, MC87-SUM-1(P) (Washington, D.C.: U.S. Government Printing Office, 1989).

Table A.9 *Ten States Showing Largest and Smallest Percent Changes in the Number of Manufacturing Establishments, 1982–1987*

Rank	All Establishments		Establishments with Fewer Than 20 Employees		Establishments with More Than 20 Employees	
			Ten Largest Increases			
1	Arizona	21.9	New Hampshire	26.7	Wyoming	42.8
2	New Hampshire	17.9	Arizona	18.4	Nevada	36.1
3	Nevada	14.5	Vermont	17.3	Arizona	32.2
4	Vermont	14.4	Montana	15.5	Michigan	14.5
5	Montana	13.8	Florida	14.1	Washington	14.4
6	Florida	13.6	Maine	12.5	Oregon	14.2
7	Washington	12.5	New Mexico	12.4	Indiana	13.3
8	Oregon	12.3	Washington	11.8	Florida	12.3
9	Virginia	10.2	Oregon	11.6	Kentucky	11.6
10	Maryland	9.5	Colorado	11.2	Georgia	11.5
			Ten Largest Decreases			
1	Oklahoma	−10.2	New York	−8.5	Alaska	−27.8
2	New York	−9.3	Oklahoma	−6.8	Oklahoma	−18.3
3	Louisiana	−7.3	District of Columbia	−5.9	Louisiana	−17.3
4	District of Columbia	−5.1	Wyoming	−5.7	West Virginia	−13.1
5	New Jersey	−4.6	Nebraska	−4.2	Texas	−11.7
6	Alaska	−4.0	New Jersey	−4.2	New York	−11.1
7	Nebraska	−2.9	Iowa	−2.8	Hawaii	−5.9
8	West Virginia	−2.5	Illinois	−2.7	Colorado	−5.9
9	Illinois	−1.3	Louisiana	−2.5	New Mexico	−5.4
10	Iowa	−0.9	South Dakota	−1.8	New Jersey	−5.1

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Commerce, Bureau of the Census, *1987 Census of Manufactures—United States Summary*, MC87-SUM-1(P) (Washington, D.C.: U.S. Government Printing Office, 1989).

Table A.10 *New Business Incorporations by SBA Region and State, 1988 and 1989*

Region/State	1988	1989	Percent Change 1988–1989	Rank
U.S.	**685,095**	**677,394**	**−1.1**	
Region I	**40,251**	**35,299**	**−12.3**	
Connecticut	11,650	10,480	−10.0	46
Maine	3,107	2,842	−8.5	45
Massachusetts	16,438	14,078	−14.4	49
New Hampshire	3,388	2,945	−13.1	48
Rhode Island	3,426	3,258	−4.9	41
Vermont	2,042	1,786	−12.5	47
Region II	**110,346**	**103,782**	**−5.9**	
New Jersey	32,639	30,426	−6.8	43
New York	77,682	73,354	−5.6	42
Region III	**92,831**	**93,458**	**0.7**	
Delaware	11,486	10,993	−4.3	36
District of Columbia	2,256	2,256	0.0	29
Maryland	16,860	17,306	2.6	16
Pennsylvania	21,842	22,242	1.8	20
Virginia	17,699	18,015	1.8	21
West Virginia	2,688	2,646	−1.6	37
Region IV	**138,505**	**145,213**	**4.8**	
Alabama	6,818	7,458	9.5	6
Florida	74,977	80,020	6.7	9
Georgia	18,659	18,815	0.8	22
Kentucky	6,961	6,931	−0.7	34
Mississippi	3,821	3,664	−4.1	40
North Carolina	12,760	13,211	3.5	14
South Carolina	6,239	6,864	10.0	5
Tennessee	8,455	8,470	0.2	28
Region V	**99,152**	**100,805**	**1.7**	
Illinois	28,654	28,882	0.8	23
Indiana	13,004	13,954	7.3	8
Michigan	22,633	22,531	−0.5	31
Minnesota	9,525	9,598	0.8	24
Ohio	18,991	18,847	−0.8	35
Wisconsin	6,345	6,993	10.2	4
Region VI	**55,497**	**59,317**	**6.9**	
Arkansas	4,253	6,463	52.0	1
Louisiana	9,057	9,018	−0.4	30
New Mexico	2,507	2,631	4.9	12
Oklahoma	7,185	7,208	0.3	27
Texas	32,495	33,997	4.6	13

Table A.10 *New Business Incorporations by SBA Region and State, 1988 and 1989—Continued*

Region/State	1988	1989	Percent Change 1988–1989	Rank
Region VII	**21,227**	**21,546**	**1.5**	
Iowa	3,825	4,554	19.1	2
Kansas	4,384	4,356	−0.6	32
Missouri	10,326	9,959	−3.6	38
Nebraska	2,692	2,677	−0.6	33
Region VIII	**24,032**	**21,270**	**−11.5**	
Colorado	16,224	13,355	−17.7	51
Montana	1,280	1,290	0.8	25
North Dakota	875	842	−3.8	39
South Dakota	983	1,008	2.5	17
Utah	3,823	3,901	2.0	19
Wyoming	847	874	3.2	15
Region IX	**82,721**	**74,950**	**−9.4**	
Arizona	12,440	11,564	−7.0	44
California	56,400	48,243	−14.5	50
Hawaii	3,199	3,780	18.2	3
Nevada	10,682	11,363	6.4	10
Region X	**20,533**	**21,754**	**5.9**	
Alaska	1,361	1,391	2.2	18
Idaho	1,895	1,908	0.7	26
Oregon	7,168	7,744	8.0	7
Washington	10,109	10,711	6.0	11

Note: A business incorporation is a business that files for organization as a corporation with the secretary of state in each jurisdiction; it may reflect either an actual startup of a new business, an intention to start, conversion of an existing sole proprietorship or partnership to the corporate form, or the creation of a subsidiary of an existing corporation. Also, data are not seasonally adjusted.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy from the Dun and Bradstreet Corporation, *New Business Incorporations*, various issues.

Table A.11 *New Business Incorporations by SBA Region and State, 1980–1989*

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
U.S. Total	**533,520**	**581,661**	**566,942**	**600,400**	**634,991**	**662,047**	**702,101**	**685,572**	**685,095**	**677,394**
Region I	**25,328**	**28,134**	**26,484**	**28,723**	**32,027**	**37,943**	**41,994**	**42,027**	**40,251**	**35,299**
Connecticut	7,513	7,893	7,251	7,799	8,116	11,208	12,451	12,181	11,850	10,480
Maine	1,698	1,907	1,782	2,053	2,231	2,598	3,090	3,198	3,107	2,852
Massachusetts	11,291	12,625	11,827	12,599	14,159	15,801	17,321	17,227	16,438	14,078
New Hampshire	1,373	1,930	1,954	2,283	2,754	3,542	3,859	3,730	3,388	2,943
Rhode Island	2,282	2,304	2,345	2,502	2,827	3,054	3,471	3,731	3,426	3,258
Vermont	1,171	1,475	1,325	1,537	1,940	1,743	1,802	2,005	2,042	1,786
Region II	**77,973**	**82,592**	**82,081**	**90,410**	**96,272**	**102,541**	**110,020**	**108,190**	**110,346**	**103,782**
New Jersey	21,484	24,113	22,401	26,215	27,846	30,458	33,130	31,876	32,659	30,428
New York	56,489	58,479	59,680	64,195	68,426	72,083	76,890	76,314	77,687	73,354
Region III	**59,190**	**64,616**	**62,968**	**67,574**	**72,076**	**78,274**	**89,332**	**91,496**	**92,831**	**93,458**
Delaware	20,810	22,594	21,899	23,940	25,866	26,606	31,546	31,414	31,486	30,993
District of Columbia	1,316	1,825	1,712	2,276	2,053	2,199	2,252	2,256	2,256	2,256
Maryland	8,548	9,745	10,401	9,630	11,176	14,239	16,035	16,368	16,860	17,308
Pennsylvania	14,882	13,582	13,431	14,619	15,890	17,748	20,212	21,389	21,842	22,242
Virginia	10,845	12,502	12,023	13,718	14,621	15,017	16,726	17,213	17,699	18,015
West Virginia	2,789	3,418	3,402	2,891	2,468	2,465	2,561	2,847	2,688	2,646
Region IV	**97,636**	**103,482**	**103,526**	**114,722**	**125,660**	**133,711**	**140,956**	**142,310**	**138,505**	**145,213**
Alabama	3,909	4,575	4,373	5,482	6,000	6,139	6,788	6,691	6,813	7,256
Florida	51,912	55,267	56,087	61,289	66,999	71,649	77,603	79,393	74,977	80,020

Table A.11 *New Business Incorporations by SBA Region and State, 1980-1989—Continued*

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Georgia	12,343	12,380	12,491	14,573	17,723	17,286	17,551	18,080	18,659	18,815
Kentucky	5,223	5,725	5,975	6,421	7,450	7,886	7,747	6,665	6,981	6,931
Mississippi	4,852	3,886	3,507	3,193	2,942	3,160	3,098	3,831	3,821	3,664
North Carolina	8,758	9,394	9,636	11,167	11,134	11,796	12,654	12,271	12,760	13,211
South Carolina	4,095	4,498	4,003	4,707	5,681	7,072	6,178	6,278	6,239	6,864
Tennessee	6,544	7,657	7,454	7,890	7,731	8,723	9,339	9,101	8,455	8,470
Region V	78,891	83,493	82,053	86,805	93,778	90,686	95,082	93,705	99,152	100,805
Illinois	24,804	27,632	28,469	29,952	32,948	26,084	26,955	26,831	28,654	28,862
Indiana	8,009	8,411	8,266	8,846	9,367	9,916	10,636	11,021	13,004	13,954
Michigan	16,660	17,139	17,201	18,463	19,474	21,864	22,910	21,822	22,633	22,531
Minnesota	6,998	7,712	7,443	8,202	9,119	9,209	9,691	9,389	9,525	9,598
Ohio	15,870	16,000	14,495	15,002	16,294	17,173	18,410	18,400	18,991	18,847
Wisconsin	6,550	6,399	6,179	6,340	6,576	6,440	6,460	6,242	6,345	6,993
Region VI	60,410	71,719	76,483	71,642	65,597	69,038	66,426	60,304	55,497	59,317
Arkansas	3,924	4,044	3,862	4,180	4,876	5,272	5,029	5,704	4,253	6,463
Louisiana	11,308	13,519	14,311	11,052	9,333	11,404	11,741	10,065	9,057	9,018
New Mexico	2,450	2,588	2,455	2,475	2,878	2,843	2,495	2,433	2,507	2,631
Oklahoma	5,453	8,746	13,645	10,053	5,465	8,149	7,565	7,551	7,185	7,208
Texas	37,275	42,822	42,210	43,882	43,045	41,370	38,796	34,551	32,495	33,997
Region VII	21,448	22,117	20,170	22,136	21,827	21,642	22,404	20,929	21,227	21,546
Iowa	5,120	4,914	4,221	4,368	3,908	4,097	4,196	3,761	3,825	4,354
Kansas	4,827	4,913	4,431	5,333	5,135	4,752	4,350	4,264	4,384	4,356

Table A.11 *New Business Incorporations by SBA Region and State, 1980–1989—Continued*

Missouri	8,612	9,021	8,613	9,617	10,021	10,176	11,242	10,294	10,326	9,959
Nebraska	2,889	3,269	2,905	2,818	2,683	2,617	2,616	2,610	2,692	2,677
Region VIII	**18,904**	**22,342**	**20,349**	**21,426**	**22,806**	**22,137**	**24,061**	**22,431**	**24,032**	**21,270**
Colorado	10,234	12,523	11,839	12,814	14,160	14,171	15,861	14,489	16,224	13,355
Montana	1,487	1,923	1,609	1,470	1,560	1,408	1,472	1,350	1,280	1,290
North Dakota	1,011	1,274	1,023	940	1,014	866	930	961	875	842
South Dakota	910	913	809	957	971	944	973	1,009	983	1,008
Utah	3,755	4,030	3,649	4,074	4,032	3,717	3,865	3,819	3,823	3,907
Wyoming	1,507	1,679	1,420	1,171	1,069	1,031	960	803	847	874
Region IX	**75,246**	**83,106**	**73,754**	**77,156**	**84,620**	**85,767**	**92,076**	**84,733**	**82,721**	**74,950**
Arizona	8,242	9,944	9,558	10,656	12,102	12,922	12,330	11,919	12,440	11,364
California	57,634	61,343	53,698	55,368	60,952	61,160	67,184	59,697	56,400	48,243
Hawaii	3,270	3,050	2,559	2,534	2,775	3,000	2,834	3,186	3,199	3,780
Nevada	6,000	8,769	7,939	8,598	8,791	8,685	9,528	9,931	10,682	11,363
Region X	**18,494**	**20,060**	**19,074**	**19,806**	**20,328**	**20,308**	**19,750**	**19,447**	**20,533**	**21,758**
Alaska	1,691	2,286	2,536	2,569	2,533	2,332	1,722	1,547	1,361	1,391
Idaho	1,813	1,912	1,742	1,794	1,716	1,636	1,765	1,665	1,895	1,908
Oregon	6,621	6,419	6,123	6,693	6,826	7,161	7,279	6,863	7,168	7,744
Washington	8,369	9,443	8,673	8,814	9,251	9,379	8,984	9,372	10,109	10,711

Note: A business incorporation is a business that files for organization as a corporation with the secretary of state in each jurisdiction; it may reflect either an actual startup of a new business, an intention to start, conversion of an existing sole proprietorship or partnership to the corporate form, or the creation of a subsidiary of an existing corporation. Also, data are not seasonally adjusted.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, *New Business Incorporations*, various issues.

Table A.12 *New Business Incorporation Index by SBA Region and State, 1986 and 1988 (Estimated)**

Region/State	Year	Number of New Business Incorporations	Share of Total U.S. Incorporations	Number of Enterprises	Share of Total U.S. Enterprises	New Business Incorporation Index
U.S.	1986	702,101	100.00	3,805,982	100.00	1.00
	1988	684,109	100.00	3,853,262	100.00	1.00
Region I	1986	41,994	5.98	213,592	5.54	1.08
	1988	40,298	5.89	213,124	5.53	1.07
Connecticut	1986	12,451	1.77	58,456	1.52	1.16
	1988	11,850	1.73	58,165	1.51	1.15
Maine	1986	3,090	0.44	17,396	0.45	0.97
	1988	3,154	0.46	17,509	0.45	1.01
Massachusetts*	1986	17,321	2.47	94,319	2.45	1.01
	1988	16,438	2.40	94,319	2.45	0.98
New Hampshire	1986	3,859	0.55	17,285	0.45	1.23
	1988	3,388	0.50	17,053	0.44	1.12
Rhode Island*	1986	3,471	0.49	16,283	0.42	1.17
	1988	3,426	0.50	16,283	0.42	1.19
Vermont	1986	1,802	0.26	9,873	0.26	1.00
	1988	2,042	0.30	9,794	0.25	1.17
Region II	1986	110,020	15.67	444,393	11.53	1.36
	1988	110,346	16.13	442,245	11.48	1.41
New Jersey	1986	33,130	4.72	134,500	3.50	1.35
	1988	32,659	4.77	132,863	3.45	1.38
New York	1986	76,890	10.95	309,485	8.03	1.36
	1988	77,687	11.36	309,382	8.03	1.41
Region III	1986	89,332	12.72	354,269	9.19	1.38
	1988	92,831	13.57	356,733	9.26	1.47
Delaware	1986	31,546	4.49	8,834	0.23	19.60
	1988	31,486	4.60	8,979	0.23	19.75
District of Columbia*	1986	2,252	0.32	11,657	0.30	1.06
	1988	2,256	0.33	11,657	0.30	1.09
Maryland	1986	16,035	2.28	64,167	1.67	1.37
	1988	16,860	2.46	65,683	1.70	1.45
Pennsylvania*	1986	20,212	2.88	173,407	4.50	0.64
	1988	21,842	3.19	173,407	4.50	0.71
Virginia	1986	16,726	2.38	75,771	1.97	1.21
	1988	17,699	2.59	76,574	1.99	1.30
West Virginia*	1986	2,561	0.36	20,433	0.53	0.69
	1988	2,180	0.32	20,433	0.53	0.60
Region IV	1986	140,956	20.08	597,314	15.50	1.30
	1988	138,505	20.25	601,569	15.61	1.30
Alabama*	1986	6,788	0.97	46,632	1.21	0.80
	1988	6,613	0.97	46,632	1.21	0.80

Table A.12 *New Business Incorporation Index by State, Region and State, 1986 and 1988 (Estimated)*—Continued*

Region/State	Year	Number of New Business Incorporations	Share of Total U.S. Incorporations	Number of Enterprises	Share of Total U.S. Enterprises	New Business Incorporation Index
Florida	1986	77,603	11.05	199,868	5.19	2.13
	1988	74,977	10.96	203,206	5.27	2.08
Georgia*	1986	17,551	2.50	86,398	2.24	1.11
	1988	18,659	2.73	86,398	2.24	1.22
Kentucky*	1986	7,747	1.10	48,344	1.25	0.88
	1988	6,981	1.02	48,344	1.25	0.81
Mississippi*	1986	3,098	0.44	31,328	0.81	0.54
	1988	3,821	0.56	31,328	0.81	0.69
North Carolina	1986	12,654	1.80	79,260	2.07	0.87
	1988	12,760	1.87	80,319	2.08	0.89
South Carolina	1986	6,176	0.88	40,927	1.06	0.83
	1988	6,239	0.91	41,105	1.07	0.85
Tennessee	1986	9,339	1.33	63,965	1.66	0.80
	1988	8,455	1.24	64,236	1.67	0.74
Region V	1986	95,082	13.54	704,148	18.27	0.74
	1988	98,742	14.43	710,965	18.45	0.78
Illinois*	1986	26,935	3.84	167,911	4.36	0.79
	1988	28,244	4.13	187,011	4.85	0.85
Indiana*	1986	10,656	1.52	74,220	1.93	0.79
	1988	13,004	1.90	74,220	1.93	0.99
Michigan	1986	22,910	3.26	135,858	3.53	0.93
	1988	22,633	3.31	135,177	3.51	0.94
Minnesota	1986	9,691	1.38	74,426	1.93	0.71
	1988	9,525	1.39	77,241	2.00	0.69
Ohio	1986	18,410	2.62	154,661	4.01	0.65
	1988	18,991	2.78	158,205	4.11	0.68
Wisconsin	1986	6,460	0.92	77,972	2.02	0.45
	1988	6,345	0.93	79,111	2.05	0.45
Region VI	1986	66,426	9.46	458,196	11.89	0.80
	1988	53,101	8.05	466,066	12.10	0.67
Arkansas*	1986	3,829	0.55	34,880	0.91	0.62
	1988	3,857	0.56	34,880	0.91	0.62
Louisiana	1986	11,741	1.67	64,204	1.67	1.00
	1988	9,057	1.32	65,939	1.71	0.77
New Mexico	1986	2,495	0.36	20,736	0.54	0.66
	1988	2,507	0.37	21,748	0.56	0.65
Oklahoma	1986	7,565	1.08	56,637	1.47	0.73
	1988	7,185	1.05	61,940	1.61	0.65
Texas	1986	38,796	5.53	281,729	7.31	0.76
	1988	32,495	4.75	281,549	7.31	0.65

Table A.12 *New Business Incorporation Index by SBA Region and State, 1986 and 1988 (Estimated)*—Continued

Region/State	Year	Number of New Business Incorporations	Share of Total U.S. Incorporations	Number of Enterprises	Share of Total U.S. Enterprises	New Business Incorporation Index
Region VII	**1986**	**22,404**	**3.19**	**204,520**	**5.31**	**0.60**
	1988	**21,227**	**3.10**	**207,317**	**5.38**	**0.58**
Iowa*	1986	4,196	0.60	47,231	1.23	0.49
	1988	3,825	0.56	47,231	1.23	0.46
Kansas	1986	4,350	0.62	45,755	1.19	0.52
	1988	4,384	0.64	47,178	1.22	0.52
Missouri*	1986	11,242	1.60	81,484	2.11	0.76
	1988	10,326	1.51	81,484	2.11	0.71
Nebraska	1986	2,616	0.37	30,050	0.78	0.48
	1988	2,692	0.39	31,424	0.82	0.48
Region VIII	**1986**	**24,061**	**3.43**	**144,548**	**3.75**	**0.91**
	1988	**24,032**	**3.51**	**150,120**	**3.90**	**0.90**
Colorado	1986	15,869	2.26	65,209	1.69	1.33
	1988	16,224	2.37	66,492	1.73	1.37
Montana	1986	1,472	0.21	18,369	0.48	0.44
	1988	1,280	0.19	19,426	0.50	0.37
North Dakota	1986	930	0.13	12,486	0.32	0.41
	1988	875	0.13	12,839	0.33	0.38
South Dakota	1986	973	0.14	13,142	0.34	0.41
	1988	983	0.14	13,621	0.35	0.41
Utah	1986	3,865	0.55	25,048	0.65	0.85
	1988	3,823	0.56	26,457	0.68	0.81
Wyoming	1986	960	0.14	10,294	0.27	0.51
	1988	847	0.12	11,285	0.29	0.42
Region IX	**1986**	**92,076**	**13.11**	**526,161**	**13.65**	**0.96**
	1988	**82,490**	**12.06**	**543,361**	**14.10**	**0.86**
Arizona	1986	11,530	1.76	47,642	1.22	1.48
	1988	11,440	1.82	47,558	1.23	1.47
California	1986	67,164	9.57	448,424	11.64	0.82
	1988	56,400	8.24	462,777	12.01	0.69
Hawaii	1986	2,834	0.40	15,787	0.41	0.99
	1988	2,968	0.43	16,904	0.44	0.99
Nevada	1986	9,528	1.36	14,908	0.39	3.51
	1988	10,682	1.56	16,122	0.42	3.73
Region X	**1986**	**19,750**	**2.81**	**158,227**	**4.11**	**0.69**
	1988	**20,537**	**3.00**	**161,762**	**4.20**	**0.72**
Alaska	1986	1,722	0.25	11,189	0.29	0.84
	1988	1,365	0.20	10,840	0.28	0.71
Idaho	1986	1,765	0.25	17,495	0.45	0.55
	1988	1,895	0.28	17,993	0.47	0.59

Table A.12 *New Business Incorporation Index by SBA Region and State, 1986 and 1988 (Estimated)**—Continued

Region/State	Year	Number of New Business Incorporations	Share of Total U.S. Incorporations	Number of Enterprises	Share of Total U.S. Enterprises	New Business Incorporation Index
Oregon	1986	7,279	1.04	50,154	1.30	0.80
	1988	7,168	1.05	52,242	1.36	0.77
Washington	1986	8,984	1.28	79,389	2.08	0.62
	1988	10,109	1.48	80,607	2.09	0.71

Note: The new business incorporation index is a measure of new business formation, derived by relating a state's share of total U.S. new business incorporations to its share of total U.S. enterprises. "Enterprises" include new and existing corporations (both C and S corporations), partnerships, and sole proprietorships.

*Because enterprise data for 1988 were not available at time of publication, 1988 enterprise totals were extrapolated from historic data from the Small Business Data Base. For 37 states, historic trends indicated a significant growth trend. For the other 13 states and the District of Columbia, indicated by an asterisk, 1986 enterprise totals were repeated. Regional and U.S. totals are therefore based upon both individual state projections and repeated 1986 data.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, various press releases.

Table A.13 *Business Bankruptcies by SBA Region and State, 1988 and 1989*

Region/State	1988	1989	Percent Change 1988–1989	Rank
U.S. Total	62,845	62,449	−0.6	
Region I	1,384	2,297	66.0	
Connecticut	719	218	−69.5	27
Maine	215	205	−4.7	24
Massachusetts	587	1,158	97.3	50
New Hampshire	186	320	72.0	49
Rhode Island	117	170	45.3	42
Vermont	49	226	276.7	51
Region II	2,865	3,637	26.9	
New Jersey	915	1,182	29.7	43
New York	1,950	2,505	28.5	48
Region III	4,004	4,790	19.6	
Delaware	58	64	10.3	44
District of Columbia	83	96	15.9	37
Maryland	397	480	20.9	40
Pennsylvania	1,125	1,310	16.4	39
Virginia	2,029	2,462	21.3	41
West Virginia	340	401	17.9	35
Region IV	8,641	10,031	16.1	
Alabama	1,219	1,384	13.5	32
Florida	1,823	2,021	10.9	31
Georgia	1,627	2,339	43.8	46
Kentucky	998	1,155	15.7	36
Mississippi	363	337	−7.2	22
North Carolina	950	1,008	6.1	29
South Carolina	405	312	−23.0	6
Tennessee	1,264	1,528	20.9	45
Region V	9,325	9,075	−2.7	
Illinois	2,780	2,397	−13.8	14
Indiana	1,191	1,098	−7.8	20
Michigan	1,512	1,579	4.4	28
Minnesota	1,414	1,581	11.8	30
Ohio	1,482	1,447	−2.4	26
Wisconsin	946	1,043	10.3	34
Region VI	12,022	10,327	−14.1	
Arkansas	552	454	−17.8	8
Louisiana	1,584	1,372	−13.4	13
New Mexico	405	302	−25.4	5

Table A.13 Business bankruptcies by SBA Region and State, 1988 and 1989—Continued

Region/State	1988	1989	Percent Change 1988–1989	Rank
Oklahoma	1,932	1,720	−11.0	9
Texas	7,549	6,479	−14.2	13
Region VII	**3,903**	**3,072**	**−21.3**	
Iowa	1,148	900	−16.4	11
Kansas	766	552	−27.7	5
Missouri	1,423	1,169	−17.8	7
Nebraska	566	391	−31.2	2
Region VIII	**6,747**	**5,537**	**−17.9**	
Colorado	4,304	3,406	−11.6	18
Montana	483	354	−26.7	4
North Dakota	197	291	+7.1	31
South Dakota	369	320	−13.3	16
Utah	1,249	723	−42.1	1
Wyoming	145	124	−14.5	14
Region IX	**9,577**	**10,030**	**4.7**	
Arizona	1,586	2,401	51.4	48
California	7,442	7,094	−4.7	28
Hawaii	117	129	10.3	33
Nevada	432	406	−6.0	23
Region X	**4,377**	**3,653**	**−16.5**	
Alaska	225	208	−7.6	21
Idaho	407	359	−11.8	17
Oregon	1,111	890	−19.9	9
Washington	2,634	2,196	−16.6	10

Note: Business bankruptcy is the legal recognition that a company is insolvent (that is, not able to satisfy creditors or discharge liabilities); the company must then restructure or completely liquidate. A business bankruptcy culminates in the filing of a bankruptcy petition under Chapter 7, 9, 11, 12, or 13 of the federal bankruptcy laws.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy from unpublished data collected by the Administrative Office of the U.S. Courts, Statistical Analysis and Reports Division.

Table A.14 *Business Bankruptcies by SBA Region and State, 1980-1989*

Region/State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
U.S., Total	43,252	48,147	68,447	61,612	63,377	70,644	79,926	81,463	62,845	62,449
Region I, Total	1,646	1,446	2,034	1,600	1,355	1,312	1,164	1,170	1,384	2,297
Connecticut	434	413	474	437	336	347	204	190	219	218
Maine	291	246	294	197	179	184	171	207	215	208
Massachusetts	477	408	657	521	497	441	517	512	587	1,158
New Hampshire	157	140	214	175	115	140	112	127	186	320
Rhode Island	185	159	256	164	129	131	85	80	117	170
Vermont	102	80	139	106	99	69	75	54	60	226
Region II, Total	4,188	3,562	5,035	3,700	3,864	3,589	3,673	3,328	2,865	3,637
New Jersey	990	964	1,557	707	1,239	1,013	1,170	1,056	913	1,132
New York	3,198	2,598	3,478	2,993	2,605	2,576	2,503	2,272	1,950	2,505
Region III, Total	3,400	3,217	4,865	4,094	3,885	4,302	4,158	4,546	4,004	4,790
Delaware	53	39	72	69	42	47	33	65	80	64
District of Columbia	38	55	80	90	101	92	85	78	63	73
Maryland	431	358	436	477	446	486	457	965	397	480
Pennsylvania	1,283	1,462	2,121	1,624	1,523	1,354	1,341	1,287	1,125	1,310
Virginia	1,291	1,066	1,740	1,416	1,327	1,905	1,769	1,680	2,029	2,462
West Virginia	304	239	416	418	436	413	473	471	340	401
Region IV, Total	6,030	7,378	10,001	8,179	8,439	9,089	9,904	11,059	8,641	10,031
Alabama	1,066	1,158	1,277	891	867	949	1185	1,627	1,211	1,334
Florida	1,049	1,340	1,890	1,620	2,107	2,151	2,468	1,837	1,823	2,021
Georgia	1,184	1,324	1,845	1,672	1,616	1836	2,229	2,080	1,631	2,130

Kentucky	548	791	1,106	749	932	997	985	1,199	998	1,155
Mississippi	183	326	477	357	335	384	580	936	383	337
North Carolina	737	802	1,089	920	838	1,005	960	1,279	980	1,008
South Carolina	224	234	329	285	233	290	349	330	488	312
Tennessee	1,078	1,299	1,970	1,805	1,414	1,424	1,851	1,840	1,264	1,528
Region V, Total	**8,410**	**8,303**	**13,068**	**12,082**	**12,131**	**13,029**	**12,250**	**12,051**	**9,325**	**9,075**
Illinois	3,100	1,862	3,644	3,843	3,643	4,988	3,826	3,028	2,988	3,397
Indiana	844	704	1,575	1,283	1,285	1,429	1,876	1,550	1,191	1,098
Michigan	1,359	1,662	1,872	1,632	1,486	1,567	1,684	1,605	1,512	1,579
Minnesota	867	975	1,397	1,366	1,379	1,738	1,727	1,729	1,414	1,511
Ohio	1,346	2,085	2,748	2,442	2,384	2,293	2,088	2,229	1,482	1,447
Wisconsin	854	935	1,832	1,716	1,954	2,021	1,357	1,316	948	1,046
Region VI, Total	**3,534**	**4,642**	**6,479**	**7,246**	**8,294**	**10,876**	**14,728**	**14,426**	**12,022**	**10,327**
Arkansas	371	501	509	619	796	884	589	798	553	534
Louisiana	689	791	1,297	1,302	1,317	1,540	2,594	2,355	1,384	1,372
New Mexico	167	181	223	197	276	373	453	490	405	307
Oklahoma	358	643	1,001	1,049	1,025	2,080	3,722	3,517	1,932	1,720
Texas	1,808	2,747	3,452	4,279	4,894	6,398	8,370	8,266	7,549	6,479
Region VII, Total	**3,282**	**2,893**	**4,534**	**3,500**	**4,820**	**3,977**	**6,688**	**7,422**	**3,903**	**3,072**
Iowa	908	640	1,598	1,541	1,568	2,272	2,908	2,917	1,448	980
Kansas	744	652	711	550	955	1,234	1,517	1,421	764	552
Missouri	1,344	907	1,819	1,075	1,644	1,843	1,893	2,406	1,423	1,169
Nebraska	488	394	626	534	661	628	975	1,488	568	391
Region VIII, Total	**2,577**	**3,370**	**3,987**	**3,733**	**4,343**	**5,387**	**7,170**	**8,589**	**6,747**	**5,537**
Colorado	1,800	1,587	1,938	1,492	1,969	2,547	3,658	5,291	4,904	3,808
Montana	194	285	192	269	217	356	438	484	483	354
North Dakota	185	182	316	361	317	357	266	302	197	211
South Dakota	266	285	469	310	340	611	902	878	369	328

Table A.14 *Business Bankruptcies by SBA Region and State, 1980-1989—Continued*

Region/State	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Utah	729	938	1,034	938	1,045	1,223	1,388	1,265	1,249	723
Wyoming	115	143	245	366	435	493	515	369	145	124
Region IX, Total	7,311	9,898	14,370	13,849	12,169	12,358	13,990	13,070	9,577	10,030
Arizona	835	994	1,308	1,464	1,389	1,441	1,936	1,731	1,506	2,401
California	5,893	8,175	12,176	11,531	10,045	9,967	11,066	10,763	7,442	7,094
Hawaii	224	250	254	276	225	266	257	183	117	129
Nevada	359	479	632	578	510	684	731	393	432	406
Region X, Total	2,874	3,438	4,074	3,629	4,077	4,725	6,201	5,802	4,377	3,653
Alaska	276	269	312	192	218	277	343	336	235	298
Idaho	464	368	418	602	658	704	609	717	487	359
Oregon	790	1,288	1,531	1,339	1,523	2,046	2,604	1,807	1,111	890
Washington	1,344	1,579	1,813	1,536	1,678	1,698	2,648	2,922	2,636	2,196

Note: A business bankruptcy is the legal recognition that a company is insolvent (that is, not able to satisfy creditors or discharge liabilities); the company must then restructure or completely liquidate. A business bankruptcy culminates in the filing of a bankruptcy petition under Chapter 7, 9, 11, 12, or 13 of the federal bankruptcy laws.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Administrative Office of the U.S. Courts, unpublished data, various issues.

Table A.15 *Business Failures by Detailed Industry, 1988 and 1989*

SIC Code	Industry	1988	1989	Percent Change 1988–1989
	All Business Failures	56,691	48,953	−13.6
	Agriculture, Forestry, Fishing, Total	1,819	1,394	−23.4
07	Agriculture	1,798	1,368	−23.9
08	Forestry	4	17	325.0
09	Fishing	17	9	−47.1
	Mining, Total	493	344	−30.2
10,11	Metal and Anthracite Mining	18	17	−5.6
121	Bituminous Coal and Lignite Mining	85	67	−21.2
138	Oil and Gas Extraction	371	245	−34.0
14	Mining of Nonmetallic Minerals	19	15	−21.1
	Construction, Total	6,828	6,827	0.0
15	General Building Contractors	2,566	2,629	2.5
16	Construction, Other Than Building	347	329	−5.2
17	Special Trade Contractors	3,915	3,869	−1.2
	Manufacturing, Total	4,226	3,840	−9.1
20	Food	230	206	−10.4
22	Textiles	92	71	−22.8
23	Apparel and Other Textile Products	301	202	−32.9
24	Lumber and Wood Products	345	356	3.2
25	Furniture and Fixtures	229	241	5.2
26	Paper and Allied Products	63	54	−14.3
27	Printing and Publishing	626	644	2.9
28	Chemicals and Allied Products	124	101	−18.5
29	Petroleum and Coal Products	21	22	4.8
30	Rubber and Misc. Plastics Products	123	110	−10.6
31	Leather and Leather Products	22	29	31.8
32	Stone, Clay, Glass, and Concrete Products	148	120	−18.9
33	Primary Metal Industries	100	70	−30.0
34	Fabricated Metal Products	450	364	−19.1
35	Machinery, except Electrical	560	496	−11.4
36	Electrical and Electronic Machinery	244	262	7.4
37	Transportation Equipment	180	182	1.1
38	Instruments and Related Products	120	98	−18.3
39	Miscellaneous Manufacturing Industries	248	212	−14.5
	Transportation, Communications, Electric, Gas, and Sanitary Services, Total	2,100	2,022	−3.7
40	Railroad Transportation	1	2	0.0
41	Local and Interurban Passenger Transp.	131	172	29.3
42	Trucking and Warehousing	1,294	1,272	−1.7
44	Water Transportation	53	44	−17.0
45	Transportation by Air	71	60	−15.5

Table A.15 *Business Failures by Detailed Industry, 1988 and 1989—Continued*

SIC Code	Industry	1988	1989	Percent Change 1988–1989
46,47	Transportation Services, Postal Services, and Pipe Lines	370	266	−28.1
48	Communication	127	122	−3.9
49	Electric, Gas, and Sanitary Services	50	4	68.0
	Wholesale Trade, Total	**4,459**	**3,534**	**−20.7**
50	Durable Goods:	2,912	2,309	−20.7
501	Motor Vehicles, Auto Parts, and Supplies	338	289	−14.5
502	Furniture and Home Furnishings	190	174	−8.4
503	Lumber and Other Construction Materials	274	243	−11.3
504	Sporting and Recreational Goods	84	82	−2.4
505	Metals and Minerals	101	81	−19.8
506	Electrical Goods	357	264	−26.1
507	Hardware and Plumbing	166	164	−1.2
508	Machinery, Equipment, and Supplies	1,139	835	−26.7
509	Miscellaneous Durable Goods	263	177	−32.7
51	Nondurable Goods:	1,547	1,225	−20.8
511	Paper and Paper Products	138	126	−8.7
512	Drugs and Drug Proprietaries	58	38	−34.5
513	Apparel, Piece Goods, and Notions	193	116	−39.8
514	Groceries and Related Products	490	376	−23.3
515	Farm-Product Raw Materials	51	31	−39.2
516	Chemicals and Allied Products	68	52	−23.5
517	Petroleum and Petroleum Products	103	77	−25.2
518	Beer, Wine, and Distilled Alcoholic Bev.	33	21	−36.4
519	Miscellaneous Nondurable Goods	413	388	−6.1
	Retail Trade, Total	**11,487**	**10,800**	**−6.0**
52	Building Materials and Tools	838	776	−8.7
53	General Merchandise Stores	179	136	−24.0
54	Food Stores	949	932	−1.9
55	Automotive Dealers and Gas Stations	1,030	1,099	6.7
56	Apparel and Accessory Stores	1,755	1,493	−14.9
57	Furniture and Home Furnishings	1,528	1,335	−12.6
58	Eating and Drinking Places	2,664	2,604	−2.3
59	Miscellaneous Retail Stores:	2,744	2,625	−4.3
591	Drug Stores and Proprietary Stores	123	120	−2.4
592	Liquor Stores	129	158	22.5
593	Used Merchandise Stores	95	95	0.0
594	Miscellaneous Goods Stores:	1,232	1,119	−9.2
5941	Sporting Goods	364	308	−15.4
5942	Book Stores	60	58	−16.7

Table A.15 *Business Failures by Detailed Industry, 1988 and 1989—Continued*

SIC Code	Industry	1988	1989	Percent Change 1988–1989
5943	Stationery Stores	99	85	−14.1
5944	Jewelry Stores	194	177	−8.8
5945	Hobby, Toy, and Game Shops	94	83	−11.7
5946	Camera and Photographic Supply Stores	35	36	2.9
5947	Gift, Novelty, and Souvenir Shops	322	326	1.2
5948	Luggage and Leather Goods Stores	10	5	−50.0
5949	Sewing, Needlework, and Piece Goods	54	49	−9.3
596	Nonstore Retailers	168	234	39.3
598	Fuel and Ice Dealers	19	18	−5.3
599	Retail Stores, n.e.c.	978	881	−9.9
	Finance, Insurance, and Real Estate, Total	**2,540**	**2,763**	**8.8**
60	Banking	295	184	−37.5
61	Credit Agencies other than Banks	194	180	−7.2
62	Security and Commodity Brokers/Dealers	158	179	13.3
63	Insurance Agents, Carriers, Brokers, and Dealers	312	309	−1.0
65	Real Estate	1,501	1,609	7.2
66	Combinations of Real Estate, Insurance, and Investment Offices	160	300	87.5
	Services, Total	**22,739**	**17,429**	**−23.4**
70	Hotels and Other Lodging Places	317	245	−19.7
72	Personal Services:	948	1,092	15.2
721	Laundry, Cleaning, and Garment Services	276	265	−4.0
722	Photographic Studios, Portrait	55	64	16.4
723	Beauty Shops	334	432	29.3
724	Barber Shops	30	30	0.0
725	Shoe Repair, Shine, and Hat Cleaning	23	26	13.0
726	Funeral Services and Crematories	28	19	−32.1
729	Miscellaneous Personal Services	202	256	26.7
73	Business Services:	11,279	6,279	−44.3
731	Advertising	272	240	−11.8
732	Consumer Credit Reporting Agencies	49	26	−46.9
733	Mailing, Reproduction, and Stenographic	228	237	3.9
734	Services to Dwellings and Other Bldgs.	416	457	9.9
735,736	Personnel Supply Services and News Syndicates	109	145	33.0
737	Computer and Data Processing Services	324	331	2.2
739	Miscellaneous Business Services	9,881	4,843	−51.0
75	Automotive Repair, Services, and Garages	1,224	1,382	12.9

Table A.15 *Business Failures by Detailed Industry, 1988 and 1989—Continued*

SIC Code	Industry	1988	1989	Percent Change 1988–1989
76	Miscellaneous Repair Services	600	605	+0.8
78,79	Motion Pictures, Amusement, and Recreation	649	492	−24.1
80	Health Services	682	699	2.5
81	Legal Services	196	291	48.5
82	Educational Services	96	112	16.7
83	Social Services	145	213	46.9
84	Museums, Art Galleries, and Gardens	6	3	−50.0
86	Membership Organizations and Households	82	430	424.4
89	Miscellaneous Services:	6,515	5,582	−14.3
891	Engineering, Architectural, and Surveying Services	238	227	−5.0
892	Noncommercial Education and Research Organizations	4	2	−50.0
893	Accounting, Auditing, and Bookkeeping	176	168	−4.5
899	Services, n.e.c.	6,096	5,185	−14.9

n.e.c. = not elsewhere classified.
Note: Totals exclude government and nonclassifiable establishments.
Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, *Quarterly Business Failures* 31, nos. 1–4 (1989).

Table A.16 *Business Failures per 10,000 Firms, by Detailed Industry, 1986*

SIC Code	Industry	Number of Failures	Number of Firms	Failures Per 10,000 Firms
	All Business Failures	55,139	3,779,142	145.9
	Agriculture, Forestry, Fishing, Total	2,620	104,768	250.1
07	Agriculture	2,386	102,430	252.5
08	Forestry	12	1,109	108.2
09	Fishing	22	1,229	179.0
	Mining, Total	908	21,868	415.2
10,11	Metal and Anthracite Mining	25	1,088	229.8
12	Bituminous Coal and Lignite Mining	136	2,973	457.5
13	Oil and Gas Extraction	722	14,957	482.7
14	Mining of Nonmetallic Minerals	25	2,850	87.7
	Construction, Total	7,029	527,373	133.3
15	General Building Contractors	2,617	190,404	137.4
16	Construction, Other Than Buildings	445	32,059	138.8
17	Special Trade Contractors	3,967	304,910	130.1
	Manufacturing, Total	4,723	356,478	132.5
20	Food	233	17,333	134.4
22	Textiles	72	7,368	95.1
23	Apparel and Other Textile Products	287	22,130	129.7
24	Lumber and Wood Products	391	26,485	147.6
25	Furniture and Fixtures	240	13,131	182.8
26	Paper and Allied Products	48	4,825	99.5
27	Printing and Publishing	599	60,709	98.7
28	Chemicals and Allied Products	163	11,822	137.9
30	Rubber and Misc. Plastics Products	141	12,094	116.6
31	Leather and Leather Products	42	2,964	141.7
32	Stone, Clay, Glass, and Concrete Products	163	13,869	117.5
33	Primary Metal Industries	133	6,187	215.0
34	Fabricated Metal Products	523	34,740	150.5
35	Machinery, except Electrical	723	59,096	122.3
36	Electrical and Electronic Machinery	329	18,857	174.5
37	Transportation Equipment	224	10,259	218.3
38	Instruments and Related Products	141	11,713	120.4
39	Miscellaneous Manufacturing Industries	271	22,696	119.4
	Transportation, Communications, Electric, Gas, and Sanitary Services, Total	2,544	135,744	187.4
40	Railroad Transportation	6	255	235.3
41	Local and Interurban Passenger Transp.	144	9,889	145.6
42	Trucking and Warehousing	1,606	69,106	232.4
44	Water Transportation	112	6,638	168.7
45	Transportation by Air	88	5,505	199.9

Table A.16 *Business failures per 10,000 firms, by Detailed Industry, 1908—Continued*

SIC Code*	Industry	Number of Failures	Number of Firms	Failures Per 10,000 Firms
46,47	Transportation Services, Postal Service and Pipe Lines	379	24,439	155.2
48	Communication	154	10,871	141.7
49	Electric, Gas, and Sanitary Services	61	9,084	67.4
	Wholesale Trade, Total	**4,807**	**420,681**	**114.1**
50	Durable Goods:	3,231	264,463	122.2
501	Motor Vehicles, Auto Parts, and Supplies	391	37,513	104.2
502	Furniture and Home Furnishings	192	14,916	128.7
503	Lumber and Other Construction Materials	267	19,457	137.2
504	Sporting and Recreational	188	13,629	138.0
505	Metals and Minerals	339	9,309	156.8
506	Electrical Goods	922	88,410	111.5
507	Hardware and Plumbing	208	19,206	108.3
508	Machinery, Equipment, and Supplies	1,321	100,774	131.1
509	Miscellaneous Durable Goods	397	27,481	112.4
51	Nondurable Goods:	1,559	156,218	99.8
511	Paper and Paper Products	137	12,482	102.4
512	Drugs and Drug Proprietaries	49	4,171	108.1
513	Apparel, Piece Goods, and Notions	148	18,496	80.0
514	Groceries and Related Products	441	37,276	118.9
515	Farm-Product Raw Materials	90	9,473	94.4
516	Chemicals and Allied Products	81	8,120	99.8
517	Petroleum and Petroleum Products	114	15,128	75.3
518	Beer, Wine, and Distilled Alcoholic Bev.	48	5,181	88.5
519	Miscellaneous Nondurable Goods	483	45,977	104.8
	Retail Trade, Total	**13,623**	**1,044,761**	**130.4**
52	Building Materials and Tools	762	70,145	108.6
53	General Merchandise Stores	218	21,318	102.3
54	Food Stores	1,163	107,344	108.3
55	Automotive Dealers and Gas Stations	1,322	136,296	97.0
56	Apparel and Accessory Stores	1,940	305,831	189.3
57	Furniture and Home Furnishings	1,560	112,362	138.8
58	Eating and Drinking Places	3,253	189,466	171.7
59	Miscellaneous Retail Stores:	3,405	201,996	112.7
591	Drug Stores and Proprietary Stores	138	31,749	43.5
592	Liquor Stores	155	22,874	67.8
593	Used Merchandise Stores	133	17,726	75.0
594	Miscellaneous Goods Stores:	1,368	124,174	110.0
5941	Sporting Goods	416	31,368	132.6

Table A.16 Business failures per 10,000 firms, by Detailed Industry: 19[illegible]—Continued

SIC Code	Industry	Number of Failures	Number of Firms	Failures Per 10,000 Firms
5942	Book Stores	75	7,462	100.5
5943	Stationery Stores	89	7,840	113.8
5944	Jewelry Stores	233	22,515	103.5
5945	Hobby, Toy and Game Shops	89	6,525	136.4
5946	Camera and Photographic Supply Stores	54	3,809	141.8
5947	Gift, Novelty, and Souvenir Shops	325	34,296	94.8
5948	Luggage and Leather Goods Stores	17	1,484	114.7
5949	Sewing, Needlework, and Piece Goods	20	2,602	72.9
596	Nonstore Retailers	195	16,878	115.3
598	Fuel and Ice Dealers	35	9,031	38.8
599	Retail Stores, n.e.c.	1,407	81,164	172.6
	Finance, Insurance and Real Estate, Total	2,776	261,182	106.3
60	Banking	11	11,567	9.5
61	Credit Agencies other than Banks	210	38,480	54.6
62	Security and Commodity Brokers, Dealers	148	11,078	133.6
63	Insurance Agents, Carriers, Brokers, and Dealers	395	43,347	91.1
65	Real Estate	1,803	156,239	115.4
66	Combinations of Real Estate, Insurance, and Investment Offices	209	1,041	2,007.7
	Services, Total	16,109	906,287	177.7
70	Hotels and Other Lodging Places	313	37,749	82.9
72	Personal Services	995	100,978	98.5
721	Laundry, Cleaning, and Garment Services	266	35,062	76.4
722	Photographic Studios, Portrait	84	6,023	134.5
723	Beauty Shops	325	29,463	110.3
724	Barber Shops	33	3,526	93.6
725	Shoe Repair Shops and Shoe Cleaning	20	3,803	51.2
726	Funeral Services and Crematories	19	11,905	16.0
729	Miscellaneous Personal Services	249	11,094	224.4
73	Business Services	10,123	249,363	405.0
731	Advertising	263	18,188	144.9
732	Consumer Credit Reporting Agencies	30	3,472	87.8
733	Mailing, Reproductive, and Stenographic	285	21,392	133.9
734	Services to Dwellings and Other Buildings	339	21,032	178.8
735,736	Personnel Supply Services and News Syndicates	104	6,725	146.9
737	Computer and Data Processing Services	329	33,822	127.4

Table A.16 *Business Failures per 10,000 Firms, by Detailed Industry, 1986—Continued*

SIC Code	Industry	Number of Failures	Number of Firms	Failures Per 10,000 Firms
739	Miscellaneous Business Services	3,756	149,043	252.0
75	Automotive Repair, Services, and Garages	1,466	102,948	142.4
76	Miscellaneous Repair Services	686	82,985	82.7
78,79	Motion Pictures, Amusement, and Recreation	760	58,738	129.4
80	Health Services	692	84,748	79.8
81	Legal Services	186	29,679	61.8
82	Educational Services	127	20,354	62.4
83	Social Services	196	24,208	79.8
84	Museums, Art Galleries, and Gardens	4	1,355	30.3
86	Membership Organizations and Households	74	97,820	7.5
89	Miscellaneous Services	488	58,851	82.9
891	Engineering, Architectural, and Surveying Services	287	38,729	80.8
892	Noncommercial Educational, Scientific, and Research Organizations	9	1,658	36.7
893	Accounting, Auditing, and Bookkeeping	198	20,474	87.4

N.A.C. = not elsewhere classified.

Note: A business failure is defined as the closing of a firm listed in the Dun and Bradstreet Corporation's credit files. Failure rates should not be compared with start rates because business failure rates represent all existing firms; business starts are new firms added to the master credit listing files of the Dun and Bradstreet Corporation that began operations within the previous three years. Totals exclude government and nonclassifiable establishments. Subtotals reflect only covered industries. Detail may not add to total because of rounding. Small firms have fewer than 500 employees. The number of firms for 1986 is derived from the Small Business Data Base. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with credit ratings or using insurance markets. For a full discussion of coverage, see "The Linked 1976–1984 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, 1987).

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, *Quarterly Business Failures*, various past issues.

Table A.17

Region/State	1988	1989	Percent Change 1988–1989	Rank
U.S. Total	57,099	49,719	−12.9	
Region I	1,051	1,285	22.3	
Connecticut	131	141	7.6	33
Maine	96	129	33.6	51
Massachusetts	598	288	44.9	48
New Hampshire	185	182	−26.1	16
Rhode Island	72	94	31.0	48
Vermont	53	49	−7.5	31
Region II	3,220	2,523	−21.6	
New Jersey	806	718	−33.8	11
New York	2,360	1,946	−17.5	74
Region III	3,083	3,210	4.1	
Delaware	44	32	−26.6	6
District of Columbia	53	48	−9.4	28
Maryland	624	487	−36.0	3
Pennsylvania	1,399	1,577	11.3	42
Virginia	926	1,375	28.6	46
West Virginia	236	157	−27.9	8
Region IV	8,569	8,700	1.5	
Alabama	415	406	−2.3	18
Florida	3,085	3,132	−0.1	38
Georgia	1,378	1,399	28.3	47
Kentucky	788	671	−4.3	88
Mississippi	492	512	8.1	41
North Carolina	672	755	12.4	43
South Carolina	285	178	−53.8	1
Tennessee	949	1,170	8.1	39
Region V	9,603	9,074	−5.5	
Illinois	2,891	2,354	1.5	40
Indiana	923	920	−0.3	37
Michigan	3,799	3,867	44.9	48
Minnesota	536	322	−39.9	7
Ohio	1,936	1,707	−11.8	29
Wisconsin	518	704	−36.5	9
Region VI	10,886	8,644	−20.6	
Arkansas	62	86	−11.1	25
Louisiana	1,458	1,585	−3.6	36
New Mexico	341	392	14.8	44
Oklahoma	886	1,242	40.1	50
Texas	8,139	5,323	−32.4	19

Table A.17 Business Failures by SBA Region and State, 1988 and 1989—Continued

Region/State	1988	1989	Percent Change 1988-1989	Rank
Region VII	3,157	2,487	-21.2	
Iowa	681	548	-19.5	8
Kansas	846	646	-23.6	10
Missouri	1,381	1,085	-21.4	9
Nebraska	249	196	-19.7	7
Region VIII	3,585	2,338	-34.8	
Colorado	2,193	1,469	-33.0	10
Montana	241	190	-21.2	6
North Dakota	159	105	-34.0	9
South Dakota	148	140	-5.4	4
Utah	599	286	-52.3	1
Wyoming	245	140	-42.9	2
Region IX	11,128	9,364	-15.9	
Arizona	1,442	1,252	-13.2	10
California	8,378	7,712	-8.0	25
Hawaii	179	167	-6.7	11
Nevada	329	233	-29.2	1
Region X	2,817	2,094	-25.7	
Alaska	207	181	-12.6	5
Idaho	363	225	-38.0	1
Oregon	509	441	-13.4	7
Washington	1,658	1,287	-22.4	9

Note: A business failure is an establishment that ceases operations with a loss to one or more creditors.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from Dun and Bradstreet Corporation, *Monthly Business Failures*, various issues.

Table A.18 *Business Failures By SBA Region and State, 1984–1989*

Region/State	1984	1985	1986	1987	1988	1989	Percent Change 1984–1985	1985–1986	1986–1987	1987–1988	1988–1989	1984–1989
U.S.	52,078	57,252	61,601	61,111	57,099	49,719	9.9	7.6	−0.8	−6.6	−12.9	−4.5
Region I	1,203	1,228	1,109	1,021	1,051	1,285	2.1	−9.7	−7.9	2.9	22.3	6.8
Connecticut	324	307	287	311	311	437	−5.2	−6.5	8.4	0.0	40.5	34.9
Maine	108	80	99	60	84	125	−25.9	23.8	−39.4	40.0	48.8	15.7
Massachusetts	513	683	721	683	586	709	33.1	5.6	−12.9	−14.2	21.0	38.2
New Hampshire	103	80	98	134	165	122	−41.2	22.5	36.7	23.1	−26.1	18.4
Rhode Island	104	60	38	35	42	55	−42.3	−36.7	−7.9	20.0	31.0	−47.1
Vermont	55	38	29	48	53	49	−30.9	−23.7	65.5	10.4	−7.5	−10.9
Region II	3,363	2,840	2,426	2,456	3,220	2,523	−9.2	−14.6	1.2	31.1	−21.6	−25.0
New Jersey	1,003	990	912	907	860	875	−1.3	−7.9	−18.1	18.1	1.7	−12.8
New York	2,360	1,850	1,514	1,709	2,360	1,648	−21.5	−18.2	12.9	38.1	−17.5	−30.2
Region III	3,684	3,571	3,066	3,198	3,083	3,210	−3.1	−14.1	4.3	−3.6	4.1	−12.9
Delaware	62	48	48	31	64	32	−22.6	0.0	−35.4	106.5	−50.0	−48.4
Dist. of Columbia	86	60	65	63	80	48	−9.1	8.3	−3.1	−15.9	−24.1	−27.3
Maryland	530	450	462	481	824	227	−15.4	2.7	4.1	−11.9	−58.8	−57.1
Pennsylvania	1,769	1,857	1,372	1,520	1,399	1,578	−6.3	−9.1	2.2	−8.8	12.3	−11.8
Virginia	918	599	693	857	928	1,175	8.2	−3.7	23.7	8.3	26.6	28.3
West Virginia	339	369	228	237	215	157	8.3	−37.9	3.9	−9.3	−27.0	−53.7
Region IV	7,589	7,917	7,810	8,495	8,569	8,700	4.3	−1.4	8.8	0.9	1.5	14.6
Alabama	791	688	398	498	618	464	−13.0	−30.2	31.4	24.1	−24.9	−41.3

Table A.18 *Business Failures By SBA Region and State, 1984–1989—Continued*

Region/State	1984	1985	1986	1987	1988	1989	Percent Change 1984–1985	1985–1986	1986–1987	1987–1988	1988–1989	1984–1989
Florida	2,586	2,793	3,331	3,201	3,135	3,132	7.8	19.3	-3.9	-2.1	-0.1	21.0
Georgia	721	954	617	1,235	1,379	1,769	32.3	-35.3	100.2	11.7	28.3	145.4
Kentucky	797	983	958	968	701	671	24.9	-2.5	1.0	-27.6	-4.3	-14.7
Mississippi	387	467	501	599	493	533	20.7	7.3	19.6	-17.7	8.1	37.7
North Carolina	763	665	582	590	672	755	-12.8	-12.5	1.4	13.9	12.4	-1.0
South Carolina	246	230	264	274	385	198	-6.5	14.8	3.8	40.5	-48.6	-27.6
Tennessee	1,326	1,217	1,181	1,134	1,169	1,176	-8.2	-3.0	-4.0	3.1	0.7	-11.8
Region V	**9,529**	**10,501**	**10,310**	**10,275**	**9,603**	**9,074**	**10.2**	**-1.8**	**-0.3**	**-6.5**	**-5.5**	**-4.8**
Illinois	2,648	3,402	3,306	3,292	3,196	3,134	28.5	-2.8	-0.3	0.3	1.8	18.4
Indiana	853	1,245	1,094	1,309	925	920	46.0	-12.1	19.7	-29.5	-0.3	7.9
Michigan	1,806	1,465	1,620	1,814	1,799	2,067	-18.9	10.6	12.0	-0.8	14.9	14.5
Minnesota	599	508	639	684	536	322	-15.5	26.3	7.0	-21.6	-39.9	-46.2
Ohio	2,606	2,456	2,082	1,933	1,936	1,707	-5.8	-15.2	-7.2	0.2	-11.8	-34.5
Wisconsin	1,019	1,427	1,567	1,243	1,189	704	40.0	9.8	-20.7	-10.9	-36.5	-30.9
Region VI	**5,609**	**8,300**	**13,019**	**12,987**	**10,886**	**8,644**	**48.0**	**56.9**	**-0.2**	**-16.2**	**-20.6**	**54.1**
Arkansas	373	517	377	438	363	311	38.6	-27.1	16.2	-17.1	-14.3	-16.6
Louisiana	858	1,384	1,826	1,803	1,436	1,388	61.3	33.9	-1.3	-20.2	-3.3	61.8
New Mexico	245	358	271	224	344	392	46.1	-24.3	-17.3	53.6	14.0	60.0
Oklahoma	825	1,030	2,869	3,158	868	1,242	24.8	178.5	10.1	-59.8	43.1	50.5
Texas	3,108	4,906	7,676	8,364	7,873	5,323	57.9	56.5	9.0	-5.9	-32.4	71.3

Region VII	2,488	4,147	4,361	4,145	3,157	2,487	66.7	5.2	−5.0	−23.8	−21.2	0.0
Iowa	395	830	672	911	661	540	110.1	−19.0	35.6	−27.4	−18.3	36.7
Kansas	712	1,583	1,689	994	846	646	122.3	6.7	−41.1	−14.9	−23.6	−9.3
Missouri	1,275	1,247	1,632	1,562	1,381	1,085	−2.2	30.9	−4.3	−11.6	−21.4	−14.9
Nebraska	106	487	368	678	269	216	359.4	−24.4	84.2	−60.3	−19.7	103.8
Region VIII	3,459	3,977	4,558	4,517	3,585	2,338	15.0	14.6	−0.9	−20.6	−34.8	−32.4
Colorado	2,348	2,693	3,174	2,935	2,433	1,560	14.7	21.8	−10.4	−17.9	−42.8	−41.9
Montana	129	194	184	325	241	190	9.6	−5.2	76.6	−25.8	−21.2	7.3
North Dakota	117	94	101	109	159	105	−19.7	7.4	7.9	45.9	−34.0	−10.3
South Dakota	60	148	151	276	148	180	141.7	6.1	82.8	−46.4	−5.4	133.3
Utah	522	477	566	590	589	286	10.8	−1.9	5.7	0.2	−52.3	−45.2
Wyoming	143	274	282	274	205	117	73.8	2.9	−2.8	−25.2	−42.9	−51.9
Region IX	11,717	11,607	11,555	11,245	11,128	9,364	−0.9	−0.4	−2.7	−1.0	−15.9	−20.1
Arizona	691	934	968	837	1,448	1,252	35.1	−3.7	21.8	74.4	−13.7	81.1
California	10,434	10,295	10,249	9,867	9,178	7,712	−1.3	−0.5	−2.8	−7.0	−16.0	−26.1
Hawaii	220	251	283	176	179	167	11.6	12.7	−37.8	1.7	−6.7	−25.0
Nevada	367	367	369	285	329	233	0.0	−1.1	−21.5	15.8	−29.2	−36.5
Region X	3,437	3,164	3,387	2,772	2,817	2,094	−7.9	7.0	−18.2	1.6	−25.7	−39.1
Alaska	105	193	288	318	287	141	64.8	66.9	10.4	−9.7	−50.9	−34.3
Idaho	175	288	314	444	363	225	16.0	54.7	41.4	−18.2	−38.0	−38.0
Oregon	1,731	1,151	1,001	709	509	441	−34.3	−13.8	−29.3	−28.1	−13.4	−74.6
Washington	1,406	1,437	1,784	1,302	1,658	1,287	16.4	9.0	−27.0	27.1	−22.4	−8.5

Note: A business failure is an establishment that ceases operation with a loss to one or more creditors.
Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, various years.

Table A.19 *Business Failure Index by SBA Region and State, 1984, 1986, and 1988*

Region/State	Year	Number of Business Failures	Share of Total U.S. Failures	Number of Enterprises	Share of Total U.S. Enterprises	Business Failure Index
U.S. Total	1984	52,078	100.00	3,809,502	100.00	1.00
	1986	61,601	100.00	3,805,982	100.00	1.00
	1988	57,098	100.00	3,853,262	100.00	1.00
Region I	1984	1,203	2.31	212,058	5.57	0.41
	1986	1,109	1.80	213,592	5.61	0.32
	1988	1,051	1.84	213,124	5.60	0.33
Connecticut	1984	324	0.62	57,332	1.51	0.41
	1986	202	0.33	58,436	1.54	0.21
	1988	151	0.26	58,166	1.53	0.17
Maine	1984	105	0.20	17,303	0.45	0.44
	1986	59	0.10	17,396	0.46	0.21
	1988	84	0.15	17,509	0.46	0.32
Massachusetts*	1984	513	0.99	94,129	2.47	0.40
	1986	725	1.18	94,319	2.48	0.47
	1988	556	0.97	94,319	2.48	0.39
New Hampshire	1984	102	0.20	16,387	0.43	0.46
	1986	56	0.09	17,285	0.45	0.20
	1988	163	0.29	17,053	0.44	0.66

Rhode Island	1984	104	0.20	17,248	0.45	0.44
	1986	38	0.06	16,283	0.43	0.14
	1988	42	0.07	16,283	0.43	0.17
Vermont	1984	55	0.11	9,458	0.25	0.43
	1986	28	0.05	9,873	0.26	0.18
	1988	53	0.09	9,794	0.26	0.36
Region II	1984	3,363	6.46	443,334	11.64	0.55
	1986	2,426	3.94	444,393	11.68	0.34
	1988	2,777	4.86	442,245	11.62	0.42
New Jersey	1984	1,005	1.93	132,993	3.49	0.55
	1986	912	1.48	134,508	3.54	0.42
	1988	860	1.51	132,863	3.49	0.42
New York	1984	2,358	4.53	310,341	8.15	0.56
	1986	1,514	2.46	309,885	8.13	0.30
	1988	2,360	4.13	309,382	8.13	0.51
Region III	1984	3,684	7.07	357,333	9.38	0.75
	1986	3,066	4.98	354,269	9.31	0.53
	1988	3,083	5.40	356,733	9.37	0.58
Delaware	1984	62	0.12	9,079	0.24	0.50
	1986	3	0.07	8,814	0.23	0.32
	1988	6	0.11	8,979	0.24	0.68
District of Columbia*	1984	66	0.13	12,542	0.33	0.38
	1986	65	0.11	11,657	0.31	0.34

Table A.19 *Business Failure Index by SBA Region and State, 1984, 1986, and 1988—Continued*

Region/State	Year	Number of Business Failures	Share of Total U.S. Failures	Number of Enterprises	Share of Total U.S. Enterprises	Business Failure Index
	1988	53	0.09	11,687	0.31	0.30
Maryland	1984	532	1.02	63,721	1.67	0.61
	1986	462	0.75	64,167	1.69	0.44
	1988	424	0.74	65,683	1.73	0.43
Pennsylvania*	1984	1,769	3.40	176,432	4.63	0.73
	1986	1,572	2.55	173,407	4.56	0.56
	1988	1,399	2.48	173,407	4.56	0.54
Virginia	1984	916	1.76	74,716	1.96	0.90
	1986	693	1.12	75,771	1.99	0.57
	1988	928	1.63	76,574	2.01	0.81
West Virginia*	1984	339	0.65	20,888	0.55	1.19
	1986	228	0.37	20,433	0.54	0.69
	1988	215	0.38	20,433	0.54	0.70
Region IV	**1984**	**7,589**	**14.57**	**593,251**	**15.57**	**0.94**
	1986	**7,810**	**12.68**	**597,314**	**15.69**	**0.81**
	1988	**8,569**	**15.01**	**601,569**	**15.81**	**0.95**
Alabama*	1984	771	1.48	46,394	1.22	1.21
	1986	376	0.61	46,432	1.23	0.50
	1988	488	1.11	46,432	1.23	0.91

Florida	1984	2,588	4.97	195,522	5.13	0.97
	1986	3,331	5.41	199,965	5.25	1.03
	1988	3,135	5.49	203,206	5.34	1.03
Georgia*	1984	721	1.38	85,837	2.25	0.61
	1986	617	1.00	86,398	2.27	0.44
	1988	1,379	2.42	86,398	2.27	1.06
Kentucky*	1984	787	1.51	49,957	1.31	1.15
	1986	958	1.56	48,344	1.27	1.22
	1988	701	1.23	48,344	1.27	0.97
Mississippi*	1984	387	0.74	31,505	0.83	0.90
	1986	501	0.81	31,328	0.82	0.99
	1988	493	0.86	31,328	0.82	1.05
North Carolina	1984	763	1.47	79,146	2.08	0.71
	1986	582	0.94	79,760	2.10	0.45
	1988	672	1.18	80,319	2.11	0.56
South Carolina	1984	246	0.47	40,971	1.08	0.43
	1986	264	0.43	40,922	1.08	0.40
	1988	385	0.67	41,105	1.08	0.62
Tennessee	1984	1,326	2.55	63,729	1.67	1.52
	1986	1,181	1.92	63,965	1.68	1.14
	1988	1,169	2.05	64,236	1.69	1.21
Region V	1984	9,529	18.30	711,326	18.67	0.98
	1986	10,310	16.74	704,148	18.50	0.90
	1988	9,603	16.82	710,965	18.68	0.90

Table A.19 *Business Failure Index by SBA Region and State, 1984, 1986, and 1988—Continued*

Region/State	Year	Number of Business Failures	Share of Total U.S. Failures	Number of Enterprises	Share of Total U.S. Enterprises	Business Failure Index
Illinois*	1984	2,646	5.08	188,633	4.95	1.03
	1986	3,308	5.37	187,011	4.91	1.09
	1988	3,301	5.78	187,011	4.91	1.18
Indiana*	1984	853	1.64	75,098	1.97	0.83
	1986	1,094	1.78	74,220	1.95	0.91
	1986	923	1.62	74,220	1.95	0.83
Michigan	1984	1,806	3.47	134,728	3.54	0.98
	1986	1,620	2.63	135,858	3.57	0.74
	1988	1,799	3.15	135,172	3.55	0.89
Minnesota	1984	599	1.15	76,094	2.00	0.58
	1986	639	1.04	74,426	1.96	0.53
	1988	536	0.94	77,241	2.03	0.46
Ohio	1984	2,605	5.00	158,274	4.15	1.20
	1986	2,002	3.38	154,661	4.06	0.83
	1988	1,936	3.39	158,205	4.16	0.82
Wisconsin	1984	1,019	1.96	78,669	2.06	0.95
	1986	1,567	2.54	77,972	2.05	1.24
	1988	1,109	1.94	78,111	2.06	0.93
Region VI	1984	5,609	10.77	461,601	12.12	0.89

	1986	13,019	21.13	458,196	12.04	1.76
	1988	10,886	19.07	466,066	12.25	1.56
Arkansas*	1984	573	1.10	35,848	0.94	3.17
	1986	377	0.61	34,890	0.92	0.67
	1988	363	0.64	34,890	0.92	0.69
	1986	1,826	2.96	64,204	1.69	2.71
	1988	1,438	2.52	65,939	1.73	1.48
New Mexico	1984	245	0.87	21,246	0.86	0.84
	1986	271	0.44	20,736	0.54	0.81
	1988	344	0.60	21,748	0.57	1.08
Oklahoma	1984	926	1.58	81,263	1.44	0.99
	1986	2,869	4.66	56,617	1.49	3.13
	1988	868	1.52	61,940	1.63	0.83
Texas	1984	3,108	5.97	277,478	7.28	0.82
	1986	7,676	12.48	281,729	7.40	1.68
	1988	7,873	13.79	281,549	7.40	1.86
Region VII	1984	2,488	4.78	210,312	5.52	0.87
	1986	4,361	7.08	204,520	5.37	1.32
	1988	3,157	5.53	207,317	5.45	1.02
Iowa*	1984	395	0.76	48,879	1.28	0.59
	1986	672	1.09	47,231	1.24	0.88
	1988	661	1.16	47,231	1.24	0.91
Kansas	1984	712	1.37	46,440	1.22	1.12
	1986	1,689	2.74	48,755	1.20	2.28
	1988	846	1.48	47,178	1.24	1.28

Table A.19 *Business Failure Index by SBA Region and State, 1984, 1986, and 1988—Continued*

Region/State	Year	Number of Business Failures	Share of Total U.S. Failures	Number of Enterprises	Share of Total U.S. Enterprises	Business Failure Index
Missouri*	1984	1,275	2.48	83,524	2.19	1.12
	1986	1,632	2.65	81,484	2.14	1.24
	1988	1,381	2.42	81,484	2.14	1.13
Nebraska	1984	109	0.20	31,469	0.83	0.25
	1986	368	0.60	30,050	0.79	0.76
	1988	269	0.47	31,424	0.83	0.57
Region VIII	1984	3,459	6.64	144,563	3.79	1.75
	1986	4,558	7.40	144,548	3.80	1.95
	1988	3,585	6.28	150,120	3.94	1.59
Colorado	1984	2,348	4.49	63,409	1.66	2.70
	1986	3,274	5.31	65,209	1.71	3.19
	1988	2,233	3.91	66,492	1.75	2.24
Montana	1984	177	0.34	18,752	0.49	0.69
	1986	184	0.30	18,369	0.48	0.62
	1988	241	0.42	19,426	0.51	0.83
North Dakota	1984	117	0.22	12,705	0.34	0.67
	1986	101	0.16	12,488	0.33	0.50
	1988	109	0.20	12,639	0.34	0.81

South Dakota	1984	60	0.12	13,667	0.36	0.32
	1986	151	0.25	13,142	0.35	0.71
	1988	148	0.26	13,621	0.36	0.72
Utah	1984	522	1.09	23,165	0.66	1.52
	1986	366	0.92	25,048	0.66	1.49
	1988	399	1.05	26,457	0.70	1.51
Wyoming	1984	243	0.47	10,805	0.28	1.68
	1986	282	0.46	10,294	0.27	1.69
	1988	205	0.36	11,285	0.30	1.21
Region IX	1984	11,717	22.50	520,343	13.66	1.65
	1986	11,555	18.76	526,161	13.82	1.36
	1988	11,127	19.49	543,361	14.28	1.37
Arizona	1984	693	1.33	45,382	1.20	1.11
	1986	646	1.06	47,042	1.24	0.98
	1988	1,441	2.52	47,558	1.25	2.02
California	1984	10,434	20.04	443,288	11.65	1.72
	1986	10,241	16.62	448,[illegible]	11.78	1.41
	1988	9,178	16.07	462,[illegible]	12.16	1.32
Hawaii	1984	225	0.43	16,004	0.42	1.03
	1986	289	0.46	15,787	0.41	1.11
	1988	179	0.31	16,904	0.44	0.77
Nevada	1984	367	0.70	14,883	0.39	1.80
	1986	363	0.59	14,908	0.39	1.50
	1988	389	0.68	16,122	0.42	1.36

Table A.19 *Business Failure Index by SBA Region and State, 1984, 1986, and 1988—Continued*

Region/State	Year	Number of Business Failures	Share of Total U.S. Failures	Number of Enterprises	Share of Total U.S. Enterprises	Business Failure Index
Region X	1984	3,437	6.60	154,656	4.06	1.63
	1986	3,387	5.50	158,227	4.16	1.32
	1988	2,817	4.93	161,762	4.25	1.16
Alaska	1984	109	0.20	10,474	0.27	0.73
	1986	288	0.47	11,189	0.29	1.59
	1988	287	0.50	10,840	0.28	1.76
Idaho	1984	175	0.34	37,162	0.98	0.35
	1986	314	0.51	17,495	0.46	1.11
	1988	363	0.64	37,962	0.97	1.34
Oregon	1984	1,751	3.36	50,245	1.32	2.55
	1986	1,001	1.62	50,364	1.32	1.23
	1988	508	0.89	52,242	1.37	0.65
Washington	1984	1,402	2.70	76,775	2.03	1.34
	1986	1,784	2.90	79,180	2.09	1.38
	1988	1,659	2.90	88,657	3.13	1.31

Notes: A business failure is an establishment that ceases operations with a loss to one or more creditors. The business failure index relates a state or region's share of business failures to its share of business enterprises.

*Because enterprise data for 1988 were not available at time of publication, 1988 enterprise totals were extrapolated from historic data from the Small Business Data Base. For 37 states, historic trends indicated a significant growth trend. For the other 13 states and the District of Columbia, indicated by an asterisk, 1986 enterprise totals were repeated. Regional and U.S. totals are therefore based upon both individual state projections and repeated 1986 data.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the Dun and Bradstreet Corporation, various press releases.

Table A.20 Nonfarm Nongovernment Employment by Major Industry and Firm Size, 1988 (Thousands)

	Total All Sizes	Firms with 20 Employees or Less (Small)	20–499 Employees (Small)	500 or More Employees (Large)
Total, All Divisions	91,248	18,102	28,248	44,898
Agriculture, Forestry, Fishing	988	440	289	259
Mining	1,349	160	276	914
Construction	5,883	2,341	2,810	732
Manufacturing	22,787	1,859	6,353	14,580
Transportation, Communications, Public Utilities	6,423	720	1,356	4,339
Wholesale Trade	6,373	2,198	2,307	1,822
Retail Trade	17,154	4,875	5,383	6,897
Finance, Insurance, Real Estate	6,899	1,288	1,998	3,613
Services	24,479	4,198	7,351	12,933

Notes: Data exclude government employees. Columns may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including enterprise, establishment, and employment cost of totals and distributions by firm size. For a full discussion of the USEEM file see "The Linked 1976–1986 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 6, 1988.

Table A.21 *Establishments, Employment by Enterprise Size and Major Industry, 1986*

Industry	Total	Enterprise Size (Employees)					
		[illegible]	5-9	[illegible]	[illegible]	[illegible]	< 500
Total United States							
Employment	91,028,636	4,910,183	5,669,513	6,081,331	8,742,206	6,532,955	31,926,188
Percent	100.00	5.39	6.23	6.68	9.60	7.17	35.07
Agriculture							
Employment	964,553	157,635	95,824	115,290	[illegible]	[illegible]	[illegible]
Percent	100.00	16.80	10.30	12.21	15.19	7.48	45.34
Mining							
Employment	1,136,909	42,305	43,488	53,666	88,432	65,270	304,305
Percent	100.00	3.72	3.38	5.80	7.78	5.59	26.77
Construction							
Employment	5,091,312	795,388	855,046	669,046	897,465	530,372	3,919,073
Percent	100.00	14.88	13.04	12.95	17.71	10.58	70.21
Manufacturing							
Employment	22,012,319	285,886	546,798	615,435	1,088,408	1,440,367	4,688,892
Percent	100.00	1.38	2.40	3.59	6.68	6.91	20.96
Transportation, Communications, and Public Utilities							
Employment	6,071,494	146,225	219,088	286,580	438,488	313,667	1,403,498
Percent	100.00	2.41	3.61	4.72	7.22	5.17	23.12
Wholesale Trade							
Employment	6,261,744	885,393	732,528	776,649	989,666	573,439	3,539,675
Percent	100.00	8.66	11.70	12.40	15.28	9.16	56.53
Retail Trade							
Employment	17,142,709	1,435,540	1,688,250	2,045,075	2,148,884	1,918,998	8,236,746
Percent	100.00	8.32	9.62	9.85	12.39	8.29	47.92
Finance, Insurance, and Real Estate							
Employment	[illegible]	392,342	351,826	374,481	[illegible]	[illegible]	[illegible]
Percent	100.00	5.50	4.88	5.16 7	8.28	6.24	30.05
Services							
Employment	24,348,776	1,203,950	1,276,669	1,381,374	1,935,248	1,671,948	7,469,189
Percent	100.00	4.80	5.20	5.63	7.88	6.81	30.41

Note: Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity; generally firms with at least one paid employee, with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including categories, establishment, and employment control totals and distributions by firm size. For a full discussion of the USEEM file, see "The United 1979-1986 USEEM Users Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1989).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 6, 1989.

13,374,188	45,300,376	4,781,742	11,122,066	5,154,926	24,669,326	45,728,260
14.69	49.76	5.25	12.22	5.66	27.10	50.24
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table A.22 *Establishment Employment by Establishment Size and Major Industry, 19*

Industry	Employment Size of Establishment					
	Total	1–4	5–9	10–19	20–49	50–99
Total United States						
Employment	91,038,636	5,882,294	7,029,912	9,733,160	15,457,128	11,300,470
Percent	100.00	6.46	7.72	10.69	16.98	12.41
Agriculture						
Employment	944,517	170,928	160,804	124,799	146,323	92,236
Percent	100.00	18.10	16.97	13.21	15.75	9.77
Mining						
Employment	2,136,989	58,357	65,988	102,626	193,426	133,796
Percent	100.00	5.13	5.80	9.03	16.75	11.77
Construction						
Employment	5,011,112	787,453	688,979	753,097	1,191,886	685,151
Percent	100.00	15.71	13.69	15.03	23.78	13.67
Manufacturing						
Employment	22,812,319	378,453	467,978	1,051,418	2,360,277	2,413,336
Percent	100.00	1.64	2.03	4.63	10.35	11.46
Transportation, Communications, and Public Utilities						
Employment	6,071,614	205,659	314,398	514,464	868,905	795,301
Percent	100.00	3.39	5.18	8.47	15.85	13.10
Wholesale Trade						
Employment	6,361,744	661,531	900,987	1,291,247	1,137,687	675,167
Percent	100.00	10.56	15.67	20.62	21.36	10.79
Retail Trade						
Employment	17,142,789	1,717,181	2,071,147	2,806,257	4,185,289	2,382,361
Percent	100.00	10.02	12.08	16.37	24.42	13.91
Finance, Insurance, and Real Estate						
Employment	7,098,778	514,698	591,110	1,290,173	1,211,086	639,168
Percent	100.00	7.25	8.33	18.17	17.06	9.01
Services						
Employment	24,548,774	1,392,068	1,492,233	1,795,089	3,824,629	3,435,567
Percent	100.00	5.67	6.08	7.31	15.58	13.99

Note: Data exclude government employment. Detail may not add to totals because of rounding. The Small Business Data Base covers approximately 93 percent of full-time business activity, generally firms with at least one paid employee with a Dun and Bradstreet credit rating, or using insurance markets. The cross-sectional USEEM file is the SBDB file of choice for static data, including enterprise, establishment, and employment control totals and distributions by firm size. For a full discussion of the USEEM file, see "The Linked 1976-1986 USEEM User's Guide" (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, July 1988).

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 6, 1988.

Employment Size of Establishment							
<100	100-199	<200	200-299	1000-4999	5000-9999	10,000 +	500 +
49,402,904 34.27	21,136,362 23.82	70,541,526 77.49	6,479,427 7.12	10,212,269 11.22	2,211,397 2.43	1,584,017 1.74	20,487,110 22.51
737,704 78.10	134,254 14.21	871,956 92.32	31,132 3.55	33,797 3.58	5,750 0.61	0 0.00	72,559 7.68
551,251 48.48	272,140 23.94	823,391 72.42	94,961 8.35	194,857 17.14	23,800 2.09	0 0.00	313,590 27.58
4,073,568 81.29	708,605 14.14	4,782,173 95.45	93,136 1.86	95,073 1.90	39,930 0.80	0 0.00	228,139 4.55
7,871,453 81.00	7,304,681 32.02	14,376,134 63.02	2,635,949 11.56	3,859,004 16.92	1,043,136 4.57	897,995 3.94	8,436,185 36.98
2,768,127 45.99	1,614,0.. 26.58	4,382,142 72.17	485,841 8.00	840,449 13.84	173,182 2.85	190,000 3.13	1,689,472 27.83
4,946,949 79.00	903,894 14.44	5,850,843 93.44	182,991 2.92	143,150 2.29	40,340 0.64	44,500 0.71	410,881 6.56
3,168,240 76.82	3,084,882 17.89	16,233,122 94.69	479,469 2.79	340,662 1.99	52,330 0.31	45,000 0.26	909,467 5.31
4,246,394 20.82	1,212,907 12.09	5,459,301 76.80	471,069 6.64	913,577 12.87	203,251 2.86	51,600 0.73	1,639,477 23.10
11,839,478 48.23	5,922,164 24.12	17,761,642 72.35	2,010,305 8.19	3,791,710 15.45	629,888 2.57	355,221 1.45	6,787,132 27.65

Table A.23 *Annual Changes in Employment in Nonfarm, Nongovernment Small-Business-Dominated, Large-Business-Dominated, and Indeterminate Industries, December 1981 to December 1989 (Percent)*

Year	Total, All Employment	Small-Business-Dominated Industries	Large-Business-Dominated Industries	Indeterminate Industries
1989	2.4	3.2	1.4	1.5
1988	6.0	6.4	5.3	6.4
1987	1.1	1.8	−0.2	2.0
1986	3.6	2.1	1.2	0.5
1985	2.5	4.6	0.4	−0.3
1984	5.2	7.8	2.6	5.2
1983	4.5	5.9	2.4	5.3
1982	−2.5	−1.1	−3.6	−5.3
1981	—	—	—	—

Note: Data exclude self-employed workers. Small-business-dominated industries are industries in which a maximum of 60 percent of industry employment is in firms with fewer than 500 employees in 1986. Similarly, large-business-dominated industries are industries in which a minimum of 60 percent of industry employment is in firms with more than 500 employees in 1986. In indeterminate industries, the small or large business employment share falls between 40 and 60 percent of industry employment.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, various issues.

Table A.24 *Employment in Selected Small-Business-Dominated Industries, December 1988 and December 1989 (Thousands)*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
	Total, Small-Business-Dominated	**48,600.3**	**50,146.4**	**1,546.1**	**3.2**
	Mining	**92.6**	**92.8**	**0.1**	**0.1**
11	Coal Mining	2.2	2.4	0.2	9.1
14[1]	Nonmetallic Minerals, Except Fuels	90.4	90.4	0.0	0.0
142	Crushed and Broken Stone	40.4	39.8	−0.6	−1.5
144	Sand and Gravel	34.0	34.2	0.2	0.6
	Construction	**4,626.0**	**4,678.0**	**52.0**	**1.1**
15[1]	General Building Contractors	1,388.3	1,403.0	8.7	0.6
152	Residential Building Construction	736.0	745.4	9.4	1.3
153	Operative Builders	47.5	44.3	−3.2	−6.7
154	Nonresidential Building Construction	596.6	598.3	1.5	0.3
161	Highway and Street Construction	227.7	215.0	−12.7	−5.6
17[1]	Special Trade Contractors	3,018.0	3,075.0	57.0	1.9
171	Plumbing, Heating, and Air Conditioning	672.8	677.0	4.2	0.6
172	Painting, Paper Hanging, and Decorating	170.4	178.2	7.8	4.6
173	Electrical Work	561.0	574.6	12.6	2.4
174	Masonry, Stonework, and Plastering	493.5	502.9	9.4	1.9
175	Carpentry and Flooring	193.8	195.1	1.3	0.7
176	Roofing and Sheet Metal Work	213.8	219.3	5.8	2.7
	Manufacturing	**4,873.9**	**4,888.4**	**14.5**	**0.3**
209	Misc. Food and Kindred Products	166.6	166.8	0.2	0.1
224	Narrow Fabric Mills	24.7	24.4	−0.3	−1.2
226	Textile Finishing, Except Wool	61.1	61.8	0.7	1.1
229	Misc. Textile Goods	56.1	55.0	−1.1	−2.0
23[1]	Apparel and Other Textile Products	594.6	593.8	−0.8	−0.1
233	Women's and Misses' Outerwear	336.6	323.2	−11.4	−3.8
238	Misc. Apparel and Accessories	42.9	45.0	2.1	4.9
239	Misc. Fabricated Textile Products	207.4	215.5	8.1	3.9

Table A.24 *Employment in Selected Small-Business-Dominated Industries, December 1988 and December 1989 (Thousands)—Continued*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
241	Logging Camps and Contractors	92.0	92.3	0.3	0.3
243	Millwood, Plywood, and Structural Members	268.5	263.6	-4.9	-1.8
244	Wood Containers	42.2	41.0	-1.2	-2.8
249	Miscellaneous Wood Products	86.6	84.7	-1.9	-2.2
233	Public Building and Related Furniture	34.4	34.3	-0.1	-0.3
254	Partitions and Fixtures	79.4	80.9	1.5	1.9
259	Misc. Furniture and Fixtures	36.9	36.8	-0.1	-0.3
27'	Printing and Publishing	801.0	823.7	22.7	2.8
274	Misc. Publishing	80.9	84.5	3.6	4.4
275	Commercial Printing	568.0	582.4	14.4	2.5
278	Blankbooks and Bookbinding	80.0	82.2	2.2	2.8
279	Printing Trade Services	59.6	61.7	2.1	3.5
307	Misc. Plastics Products	616.6	612.4	-4.2	-0.7
31'	Leather and Leather Products	49.1	49.3	0.2	0.4
311	Leather Tanning and Finishing	14.0	14.6	0.6	4.3
316	Luggage	11.5	11.7	0.2	1.7
317	Handbags and Personal Leather Goods	15.7	15.2	-0.5	-3.2
33***	Primary Metal Industries	96.4	95.1	-1.3	-1.3
336	Nonferrous Foundries	91.0	89.7	-1.3	-1.4
345	Screw Machine Products, Bolts, etc.	102.2	100.3	-1.9	-1.9
346	Metal Forgings and Stampings	237.5	228.3	-9.2	-3.9
347	Metal Services, n.e.c.	127.4	129.8	2.4	1.9
349	Misc. Fabricated Metal Products	227.3	226.3	-1.0	-0.4
354	Metalworking Machinery	328.0	336.5	8.5	2.6
355	Special Industry Machinery	177.5	177.4	-0.1	-0.1
359	Misc. Machinery Except Electrical	269.4	269.9	0.5	0.2
37'	Transportation Equipment	36.8	40.4	3.6	9.8
374	Railroad Equipment	36.6	40.2	3.6	9.8
383	Optical Instruments and Lenses	30.3	30.7	0.4	1.3

Table A.24 Employment in Selected Small-Business-Dominated Industries, December 1988 and December 1989 (Thousands)—Continued

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
393	Musical Instruments	13.3	12.9	-0.4	-3.0
395	Pens, Pencils, Office and Art Supplies	33.4	33.5	0.1	0.3
396	Costume Jewelry and Notions	40.7	43.4	2.7	6.6
399	Miscellaneous Manufactures	142.9	142.1	-0.8	-0.6
	Transportation and Public Utilities	**2,421.2**	**2,537.4**	**116.2**	**4.8**
41'	Local and Interurban Passenger Transit	164.1	173.7	9.6	5.9
412	Taxicabs	35.8	35.2	-0.6	-1.7
415	School Buses	112.9	121.8	8.9	7.9
42'	Trucking and Warehousing	1,660.6	1,735.0	74.4	4.5
421,3	Trucking and Trucking Terminals	1,539.4	1,608.2	68.8	4.5
422	Public Warehousing	121.2	125.8	+.6	3.8
47'	Transportation Services	326.6	331.5	24.9	7.6
471	Freight Forwarding	72.9	76.7	4.8	6.5
48'	Communication	269.9	277.2	7.3	2.7
483	Radio and Television Broadcasting	242.6	248.2	5.6	2.3
	Wholesale Trade	**5,937.9**	**6,117.8**	**179.9**	**3.0**
50–51'		5,815.0	5,999.7	184.2	3.2
501	Motor Vehicles and Auto Equipment	436.6	436.5	1.9	0.4
502	Furniture and Home Furnishings	334.3	337.9	3.6	1.1
503	Lumber and Construction Materials	230.0	242.3	12.3	5.3
504	Sporting Goods, Toys, and Hobby Goods	94.2	102.2	8.0	8
505	Metals and Minerals, Except Petroleum	143.7	143.9	0.2	0.1
506	Electrical Goods	515.4	544.3	28.9	5.6
507	Hardware, Plumbing, and Heating Equipment	281.7	281.3	-0.4	-0.1
508	Machinery, Equipment and Supplies	1,539.3	1,596.4	57.1	3.7
509	Miscellaneous Durable Goods	232.3	241.3	9.0	3.9
511	Paper and Paper Products	223.4	230.7	7.3	3.3
513	Apparel, Piece Goods, and Notions	194.3	205.7	11.4	5.9
514	Groceries and Related Products	834.5	846.5	12.0	1.4
516	Chemicals and Allied Products	127.2	128.9	1.7	1.3

Table A.24 *Employment in Selected Small-Business-Dominated Industries, September 1988 and December 1989 (Thousands)—Continued*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
517	Petroleum and Petroleum Products	204	208.2	4.2	2.1
518	Beer, Wine, and Distilled Beverages	152.3	156.3	4.0	2.6
519	Miscellaneous Nondurable Goods	452.7	476.5	23.8	5.2
	Retail Trade	**11,845.4**	**12,059.7**	**214.3**	**1.8**
52[1]	Building materials and Garden Supplies	203.0	210.5	7.5	3.7
525	Hardware Stores	164.4	172.4	8.0	4.9
54[1]	Food Stores	249.9	260.0	10.1	4.0
542	Meat Markets and Freezer Provisioners	57.6	59.6	3.0	5.2
546	Retail Bakeries	178.1	184.0	4.9	2.8
55[1]	Automotive Dealers and Service Stations	2,124.1	2,152.3	28.2	1.3
551.2	New and Used Car Dealers	1,044.8	1,030.7	-14.1	-1.3
553	Auto and Home Supply Stores	343.3	362.7	19.4	5.7
554	Gasoline Service Stations	634.1	644.8	10.7	1.7
56[1]	Apparel and Accessory Stores	135.6	136.0	0.4	0.3
561	Men's and Boys' Clothing and Furnishings	119.3	119.4	0.1	0.1
57[1]	Furniture and Home Furnishings Stores	831.3	842.4	11.1	1.3
571	Furniture and Home Furnishings Stores	477.6	485.8	8.2	1.7
572	Household Appliance Stores	83.9	77.0	-6.9	-8.2
573	Radio, TV, and Music Stores	269.8	279.6	9.8	3.6
58	Eating and Drinking Places	6,286.8	6,393.8	107.0	1.7
59[1]	Miscellaneous Retail Trade	2,014.7	2,064.7	50.0	2.5
592	Liquor Stores	127.3	130.2	2.9	2.3
594	Miscellaneous Shopping Good Stores	1,007.9	1,038.2	30.3	3.0
596	Nonstore Retailers	288.9	270.8	-18.1	-6.3
598	Fuel and Ice Dealers	119.5	124.1	4.6	3.8
599	Retail Stores, n.e.c.	409.4	433.8	24.4	6.0

Table A.24 *Employment in Selected Small-Business-Dominated Industries, December 1988 and December 1989 (Thousands)—Continued*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
	Finance, Insurance, and Real Estate	**1,966.1**	**2,031.2**	**65.1**	**3.3**
64	Insurance Agents, Brokers, and Services	653.5	664.9	11.4	1.7
65*	Real Estate	1,303.6	1,357.5	53.9	4.1
651	Real Estate Operators and Lessors	572.7	599.1	26.4	4.6
653	Real Estate Agents and Managers	536.5	554.0	17.5	3.3
655	Subdividers and Developers	162.8	171.6	8.8	5.4
66	Combined Real Estate, Insurance etc.	9.0	8.8	-0.2	-2.2
	Services	**16,837.2**	**17,741.1**	**903.9**	**5.4**
72*	Personal Services	1,569.9	1,628.1	58.2	3.4
721	Laundry, Cleaning, and Garment Services	5.8	6.4	0.1	0.0
722	Photographic Portrait Studios	62.2	65.9	3.7	5.9
723	Beauty Shops	367.4	375.9	8.5	2.3
726	Funeral Services and Crematories	80.3	82.6	2.3	2.9
73*	Business Services	4,128.9	4,323.7	194.8	4.5
731	Advertising	250.5	259.9	9.4	3.8
732	Credit Reporting and Collection	91.6	95.8	3.9	4.2
733	Mailing, Reproduction, Stenographic	232.0	264.9	32.9	14.2
734	Services to Buildings	800.4	804.3	3.9	0.5
737	Computer and Data Processing Services	720.2	799.0	78.8	10.9
739	Misc. Business Services	2,224.4	2,289.6	65.2	2.9
75*	Auto Repair, Services, and Garages	858.1	913.4	55.3	6.4
751	Automotive Rentals, Without Drivers	169.2	190.6	21.4	12.6
753	Automotive Repair Shops	498.6	529.3	30.7	6.2
76*	Miscellaneous Repair Services	351.6	365.8	14.2	4.0
762	Electrical Repair Shops	114.9	128.0	13.1	11.4
79	Amusement and Recreation Services	857.9	879.8	41.9	4.9
80*	Health Services	3,687.3	3,994.4	307.1	8.3

Table A.24 *Employment in Selected Small-Business-Dominated Industries, November 1988 and December 1989 (Thousands—Continued)*

SIC Code (1972)	Industry	Employment		Absolute Change	Percent Change
		1988	1989	1988–1989	1988–1989
801	Office of Physicians	1,451.7	1,252.4	100.7	8.7
802	Offices of Dentists	495.9	521.1	25.2	5.1
805	Nursing and Personal Care Facilities	1,343.0	1,421.3	78.3	5.8
807	Medical and Dental Laboratories	158.0	180.9	22.9	14.5
809	Outpatient Care Facilities	287.4	345.2	57.8	20.1
81	Legal Services	872.7	915.1	42.4	4.9
82[1]	Educational Services	545.8	562.6	16.8	3.1
821	Elementary and Secondary Schools	408.5	411.6	5.1	1.3
824	Correspondence and Vocational Schools	101.3	108.3	7.0	6.9
83[1]	Social Services	1,672.3	1,807.5	135.2	8.1
832	Individual and Family Services	347.4	361.9	14.5	4.2
833	Job Training and Related Services	234.4	242.6	8.2	3.5
836	Residential Care	406.7	444.7	38.0	9.3
86[1]	Membership Organizations	1,738.4	1,762.3	23.9	1.4
861	Business Associations	99.8	100.4	0.6	0.6
863	Labor Organizations	137.9	136.7	−1.2	−0.9
864	Civic and Social Associations	384.8	405.2	20.4	5.3
89[1]	Miscellaneous Services	754.3	787.4	33.1	4.4
891	Engineering and Architectural Services	735.4	765.1	29.7	4.0

n.e.c. = Not elsewhere classified.

[1]Represents sum of three-digit components which are also shown separately.

[2]Represents two-digit industries with three-digit industry breakout. However, due to the lack of total industry distribution, these industry components do not equal the two-digit total. If the industry was clearly large-business-dominated or small-business-dominated, the two-digit industry was listed to represent the overall two-digit industry total.

[3]Each two-digit subcomponent industry reflects both the sum of the separately enumerated three-digit components and a residual component representing industries not covered by BLS.

Note: Excludes self-employed workers. Small-business-dominated industries are industries in which a minimum of 60 percent of employment is in firms with fewer than 500 employees.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (March 1990), Table B-2.

Table A.25 Employment in Selected Large-Business-Dominated Industries, December 1988 and December 1989 (Thousands)

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
	Total, Large-Business-Dominated	**32,328.7**	**32,782.9**	**454.2**	**1.4**
	Mining	**620.9**	**647.4**	**26.5**	**4.3**
10	Metal Mining	58.7	64.1	5.4	9.2
12	Bituminous Coal and Lignite Mining	145.4	141.6	−3.8	−2.6
13	Oil and Gas Extraction	398.7	420.1	21.4	5.4
14'	Nonmetallic Minerals, Except Fuels	21.7	21.6	8.5	2.4
147	Chemical and Fertilizer Minerals	17.5	17.9	0.4	2.3
	Manufacturing	**11,664.1**	**11,584.8**	**−79.5**	**−0.7**
20	Food and Kindred Products	1,470.1	1,500.5	30.4	2.1
21	Tobacco Manufactures	59.4	53.8	−5.6	−9.4
22	Textile Mill Products	583.4	579.1	−4.3	−0.7
23'	Apparel and Other Textile Products	377.0	373.2	−3.8	−1.0
26	Paper and Allied Products	487.6	487.3	−0.3	−0.1
27'	Printing and Publishing	659.1	665.5	6.4	1.0
28	Chemicals and Allied Products	1,076.5	1,099.9	23.4	2.2
29'	Petroleum and Coal Products	131.4	133.5	2.0	1.5
30	Rubber and Misc. Plastics Products	225.1	221.7	−3.4	−1.5
31'	Leather and Leather Products	93.8	87.6	−6.2	−6.6
32'	Stone, Clay, and Glass Products	246.2	244.0	−2.2	−0.9
33'	Primary Metal Industries	536.7	528.9	−7.8	−1.5
34	Fabricated Metal Products	326.5	315.9	−10.6	−3.2
35	Machinery, Except Electrical	1,353.1	1,367.6	12.5	0.9
36	Electric and Electronic Equipment	1,969.9	1,899.2	−70.7	−3.6
37'	Transportation Equipment	1,853.9	1,816.2	−37.7	−2.0
38	Instruments and Related Products	212.6	211.0	−1.6	−0.8
	Transportation and Public Utilities	**2,840.9**	**2,906.0**	**65.1**	**2.3**
40	Railroad Transportation	296.2	289.7	−6.5	−2.2
41'	Local and Interurban Passenger Transit	32.9	33.3	0.4	1.2
413	Intercity Highway Transportation	29.5	29.6	0.1	0.3
45'	Transportation By Air	668.4	746.7	78.3	11.7
451,2	Air Transportation	576.3	645.0	68.7	11.9
458	Air Transportation Services	92.1	101.7	9.6	10.4

Table A.25 *Employment in Selected Large-Business-Dominated Industries, December 1988 and December 1989 (Thousands)—Continued*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
48'	Communications	1,009.1	1,001.4	−7.7	−0.8
481	Telephone Communication	889.6	874.4	−15.2	−1.7
49'	Electric, Gas and Sanitary Services	834.3	839.9	0.6	0.1
491	Electrical Services	450.9	446.6	−4.3	−1.0
492	Gas Production and Distribution	164.8	168.4	3.6	2.2
493	Combination Utility Services	192.2	192.8	0.6	0.3
	Retail Trade	6,087.5	6,238.3	150.8	2.5
53	General Merchandise Stores	2,758	2,769.1	10.2	0.4
54'	Food Stores	2,965.0	3,113.2	148.2	5.0
541	Grocery Stores	2,859.6	2,992.2	132.6	4.6
56'	Apparel and Accessory Stores	363.6	356.0	−7.6	−2.1
565	Family Clothing Stores	327.7	319.3	−8.4	−2.6
	Finance, Insurance, and Real Estate	4,759.8	4,836.2	76.4	1.6
60'	Banking	1,749.5	1,795.7	46.2	2.6
602	Commercial and Stock Savings Banks	1,561.3	1,582.3	21.0	1.3
603	Mutual Savings Banks	79.8	79.5	−0.3	−0.4
61	Credit Agencies other than Banks	903.3	912.1	8.8	1.0
62'	Security, Commodity Brokers, and Services	442.5	433.0	−9.5	−2.1
621	Security Brokers and Dealers	345.7	330.3	−15.4	−4.5
63'	Insurance Carriers	1,455.4	1,478.8	23.4	1.6
631	Life Insurance	576.6	574.7	−1.9	−0.3
632	Medical Service and Health Insurance	225.1	239.1	14.0	6.2
633	Fire, Marine, and Casualty Insurance	544.8	549.3	4.5	0.8
636	Title Insurance	58.1	61.9	3.8	6.5
67	Holding and Other Investment Offices	209.1	216.6	7.5	3.6

Table A.25 *Employment in Selected Large-Business-Dominated Industries, December 1988 and December 1989 (Thousands)*—Continued

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
	Services	6,355.3	6,570.2	214.9	3.4
73[1]	Business Services	1,415.6	1,357.5	-58.1	-4.1
736	Personnel Supply Services	1,412.6	1,354.3	-58.3	-4.1
78[1]	Motion Pictures	134.9	152.6	17.7	13.1
781	Motion Picture Production and Services	126.4	144.2	17.8	14.1
80[1]	Health Services	3,662.8	3,881.4	218.6	6.0
806	Hospitals	3,382.9	3,576.7	193.8	5.7
82[1]	Educational Services	1,142.0	1,178.7	36.7	3.2
822	Colleges and Universities	1,057.4	1,083.6	26.2	2.5

[1]Represents sum of three-digit components, which are also shown separately.
[2]Represents two-digit industries with three-digit industry breakout. However, due to the lack of total industry distribution, these industry components do not equal the specified two-digit total. If the industry was clearly large-business-dominated or small-business-dominated, the two-digit industry was listed to represent the overall two-digit industry total.
[3]Each two-digit subcomponent industry reflects both the sum of the separately enumerated three-digit components and a residual component representing industries not covered by BLS.

Note: Excludes self-employed workers. Large-business-dominated industries are industries in which a minimum of 60 percent of employment is in firms with more than 500 employees.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (March 1990), Table B.2.

Table A.26 *Employment in Selected Indeterminate Industries, December 1988 and December 1989 (Thousands)*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
	Total, Indeterminate Industries	**8,499.4**	**8,624.6**	**125.2**	**1.5**
	Construction	**521.8**	**562.4**	**40.6**	**7.8**
162	Heavy Construction, Except Highway	521.8	562.4	40.6	7.8
	Manufacturing	**3,087.6**	**3,060.7**	**-26.9**	**-0.9**
23*	Apparel and Other Textile Products	198.8	194.6	-4.2	-2.1
231	Men's and Boys' Suits and Coats	58.8	54.1	-4.7	-8.0
236*	Children's Outerwear	58.0	58.4	0.4	0.7
242	Sawmills and Planing Mills	209.5	207.0	-2.5	-1.2
245	Wood Buildings and Mobile Homes	70.9	68.4	-2.5	-3.5
251	Household Furniture	313.8	305.5	-8.3	-2.6
252	Office Furniture	70.8	69.8	-1.0	-1.4
265	Paperboard Containers and Boxes	209.5	211.5	2.0	1.0
27*	Printing and Publishing	135.5	139.8	4.3	3.2
272	Periodicals	133.8	137.8	4.0	3.0
29*	Petroleum and Coal Products	28.4	27.8	-0.6	-2.1
295	Paving and Roofing Materials	25.4	24.7	-0.7	-2.8
32*	Stone, Clay, and Glass Products	354.4	350.3	-4.1	-1.2
323	Products of Purchased Glass	56.9	55.4	-0.5	-0.9
325	Structural Clay Products	38.8	36.8	-2.0	-5.2
326	Pottery and Related Products	38.5	38.0	-0.5	-1.3
327	Concrete, Gypsum, and Plaster Products	211.4	209.0	-2.4	-1.1
33*	Primary Metal Industries	153.5	149.0	-4.5	-2.9
332	Iron and Steel Foundries	145.4	140.8	-4.6	-3.2
344	Fabricated Structural Metal Products	436.8	433.9	-2.9	-0.7
361*	Electric Distributing Equipment	109.1	105.2	-3.9	-3.6

Table A.26 *Employment in Selected Indeterminate Industries, December 1988 and December 1989 (Thousands)—Continued*

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
37*	Transportation Equipment	193.1	185.8	-7.3	-3.8
373	Ship and Boat Building and Repairing	192.0	184.6	-7.4	-3.9
382	Measuring and Controlling Devices	267.5	269.4	1.9	0.7
384	Medical Instruments and Supplies	208.0	214.2	6.2	3.0
385	Ophthalmic Goods	39.1	40.6	1.5	3.8
387	Watches, Clocks, and Watchcases	11.9	11.0	-0.9	-7.6
391	Jewelry, Silverware, and Plated Ware	54.9	54.5	-0.4	-0.7
394	Toys and Sporting Goods	102.1	103.2	1.1	1.1
	Transportation and Public Utilities	**416.2**	**437.5**	**19.3**	**4.6**
41*	Local and Interurban Passenger Transit	133.2	146.3	13.1	9.8
411	Local and Suburban Transportation	123.4	135.6	12.2	9.9
44	Water Transportation	170.5	169.1	-1.4	-0.8
46	Pipe Lines, except Natural Gas	18.4	19.1	0.7	3.8
49*	Electric, Gas, and Sanitary Services	96.1	103.0	6.9	7.2
495	Sanitary Services	93.8	100.7	6.9	7.4
	Wholesale Trade	**190.1**	**196.2**	**6.1**	**3.2**
51*	Wholesale Trade (Nondurable Goods)	190.1	196.4	6.3	3.2
512	Drug, Proprietaries, and Sundries	186.3	192.5	6.2	3.3
	Retail Trade	**1,987.0**	**2,013.3**	**26.3**	**1.3**
52*	Building Materials and Garden Supplies	560.5	554.2	-6.3	-1.1
521	Lumber and Other Building Materials	425.1	420.7	-4.4	-1.0
56*	Apparel and Accessory Stores	793.4	803.8	10.4	1.3
562	Women's Ready-to-Wear Stores	445.6	446.6	1.0	0.2
566	Shoe Stores	237.5	244.4	6.9	2.9
59*	Miscellaneous Retail Trade	633.1	655.3	22.2	3.5
591	Drug Stores and Proprietary Stores	612.6	632.8	20.2	3.3

Table A.26 *Employment in Selected Indeterminate Industries, December 1988 and December 1989 (Thousands)*—Continued

SIC Code (1972)	Industry	December 1988	December 1989	Absolute Change 1988–1989	Percent Change 1988–1989
	Services	**2,294.7**	**2,354.5**	**59.8**	**2.6**
70[4]	Hotels and Other Lodging Places	1,522.9	1,551.7	28.8	1.9
701	Hotels, Motels, and Tourist Courts	1,486.1	1,508.1	22.0	1.5
78[1]	Motion Pictures	110.9	115.8	4.9	4.4
783	Motion Picture Theaters	101.7	106.9	5.2	5.1
89[1]	Miscellaneous Services	660.9	687.0	26.1	3.9
892	Noncommercial Research Organizations	138.1	151.6	13.5	9.8
893	Accounting, Auditing, and Bookkeeping	501.8	517.7	15.9	3.2

[1]Represents sum of three-digit components, which are also shown separately.
[2]Represents two-digit industries with three-digit industry breakout. However, due to the lack of total industry distribution, these industry components do not equal the specified two-digit total. If the industry was clearly large-business-dominated or small-business-dominated, the two-digit industry was listed to represent the overall two-digit industry total.
[4]Each two-digit subcomponent industry reflects both the sum of the separately enumerated three-digit components and a residual component representing industries not covered by BLS.
Note: Excludes self-employed workers. Indeterminate industries are industries in which the small- or large-business-dominated share falls between 40.1 and 59.9 percent of industry employment.
Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (March 1990), Table B.2.

Table A.27 *Employment Growth in Metropolitan Statistical Areas (MSAs) and Non-MSAs by State, 1982–1986*

State	Small Firms (<500 Employees)	Large Firms (500+ Employees)	All Firms
Total United States			
Total	**5,522,512**	**3,405,428**	**8,927,940**
MSA	**4,897,544**	**3,202,856**	**8,100,100**
Non-MSA	**624,968**	**122,872**	**747,840**
Alabama			
Total	74,262	88,782	163,004
MSA	59,813	59,734	119,547
Non-MSA	14,448	29,048	43,496
Alaska			
Total	20,048	13,869	33,917
MSA	0	0	0
Non-MSA	20,048	13,869	33,917
Arizona			
Total	140,926	108,781	249,707
MSA	122,226	106,765	228,991
Non-MSA	18,700	2,016	20,716
Arkansas			
Total	46,049	10,930	56,979
MSA	23,276	4,914	28,190
Non-MSA	22,773	6,016	28,789
California			
Total	836,294	658,705	1,494,999
MSA	819,071	647,253	1,466,324
Non-MSA	17,223	11,452	28,675
Colorado			
Total	84,790	91,993	176,783
MSA	88,857	95,159	184,016
Non-MSA	−4,067	−3,166	−7,233
Connecticut			
Total	97,384	143,542	240,926
MSA	97,384	143,542	240,926
Non-MSA	0	0	0
Delaware			
Total	13,813	53,009	66,822
MSA	11,645	51,530	63,175
Non-MSA	2,168	3,479	5,647

Table A.27 *Employment Growth in Metropolitan Statistical Areas (MSAs) and Non-MSAs by State, 1982–1986—Continued*

State	Small Firms (<500 Employees)	Large Firms (500+ Employees)	All Firms
District of Columbia			
Total	17,938	73,012	90,950
MSA	17,938	73,012	90,950
Non-MSA	0	0	0
Florida			
Total	401,142	281,876	683,018
MSA	382,500	274,169	656,669
Non-MSA	18,642	7,707	26,349
Georgia			
Total	199,653	178,800	378,453
MSA	161,887	152,269	314,156
Non-MSA	37,765	26,531	64,296
Hawaii			
Total	14,442	20,569	35,011
MSA	8,555	14,635	23,190
Non-MSA	5,886	5,934	11,820
Idaho			
Total	17,783	21,377	39,160
MSA	4,567	5,324	9,891
Non-MSA	13,216	16,052	29,268
Illinois			
Total	201,417	−27,482	173,935
MSA	188,147	−812	187,335
Non-MSA	13,270	−16,670	−13,400
Indiana			
Total	121,450	−14,384	107,066
MSA	96,472	−16,359	80,113
Non-MSA	24,978	1,975	26,953
Iowa			
Total	25,208	−17,020	8,188
MSA	19,938	−16,341	3,597
Non-MSA	5,270	−679	4,591
Kansas			
Total	53,888	14,306	68,194
MSA	43,071	1,743	44,814
Non-MSA	10,817	12,562	23,379

Table A.27 *Employment Growth in Metropolitan Statistical Areas (MSAs) and Non-MSAs by State, 1982–1986—Continued*

State	Small Firms (<500 Employees)	Large Firms (500+ Employees)	All Firms
Kentucky			
Total	38,591	−14,314	23,277
MSA	30,791	−9,361	21,430
Non-MSA	6,800	−4,952	1,848
Louisiana			
Total	10,019	[illegible]	[illegible]
MSA	[illegible]	[illegible]	[illegible]
Non-MSA	−4,321	−7,275	−11,596
Maine			
Total	29,495	[illegible]	47,619
MSA	[illegible]	19,087	32,533
Non-MSA	11,048	−963	10,085
Maryland			
Total	146,610	[illegible]	[illegible]
MSA	[illegible]	[illegible]	[illegible]
Non-MSA	[illegible]	[illegible]	[illegible]
Massachusetts			
Total	139,856	[illegible]	[illegible]
MSA	[illegible]	[illegible]	[illegible]
Non-MSA	[illegible]	[illegible]	[illegible]
Michigan			
Total	193,305	113,649	81,656
MSA	161,712	[illegible]	45,455
Non-MSA	[illegible]	[illegible]	36,402
Minnesota			
Total	96,673	132,923	229,596
MSA	90,179	[illegible]	217,025
Non-MSA	6,496	6,077	12,573
Mississippi			
Total	40,801	50,740	91,541
MSA	37,509	12,659	50,168
Non-MSA	23,392	18,080	41,472
Missouri			
Total	114,270	[illegible]	162,530
MSA	[illegible]	46,379	140,681
Non-MSA	19,568	[illegible]	21,850

Table A.27 *Employment Growth in Metropolitan Statistical Areas (MSAs) and Non-MSAs by State, 1982–1986—Continued*

State	Small Firms (<500 Employees)	Large Firms (500+ Employees)	All Firms
Montana			
Total	9,269	3,903	13,172
MSA	1,175	2,869	4,044
Non-MSA	8,094	934	9,028
Nebraska			
Total	11,629	88,165	99,794
MSA	17,596	86,816	104,412
Non-MSA	-5,967	1,349	-4,618
Nevada			
Total	38,941	19,218	58,159
MSA	33,658	19,952	53,610
Non-MSA	5,283	-734	4,549
New Hampshire			
Total	47,200	20,453	67,653
MSA	34,748	13,522	48,270
Non-MSA	12,452	6,932	19,384
New Jersey			
Total	245,911	168,274	414,185
MSA	245,911	168,274	414,185
Non-MSA	0	0	0
New Mexico			
Total	18,872	12,996	31,868
MSA	19,903	18,014	37,917
Non-MSA	-1,026	-5,018	-6,044
New York			
Total	388,721	252,094	640,815
MSA	364,399	254,239	618,638
Non-MSA	24,322	-2,144	22,178
North Carolina			
Total	168,587	203,447	372,034
MSA	135,142	162,323	297,465
Non-MSA	53,445	41,124	94,569
North Dakota			
Total	4,889	8,061	12,950
MSA	4,927	5,810	10,737
Non-MSA	-39	2,251	2,212

Table A.27 *Employment Growth in Metropolitan Statistical Areas (MSAs) and Non-MSAs by State, 1982–1986—Continued*

State	Small Firms (<500 Employees)	Large Firms (500+ Employees)	All Firms
Ohio			
Total	170,720	11,561	182,281
MSA	144,673	39,177	183,850
Non-MSA	26,046	−27,617	−1,571
Oklahoma			
Total	834	−48,794	−47,960
MSA	3,472	−38,308	−35,836
Non-MSA	−1,637	−10,086	−11,723
Oregon			
Total	42,732	44,886	87,618
MSA	31,441	38,512	69,953
Non-MSA	11,291	6,373	17,664
Pennsylvania			
Total	191,784	−94,077	97,707
MSA	171,625	−77,467	94,158
Non-MSA	20,158	−16,610	3,548
Rhode Island			
Total	21,136	14,552	35,688
MSA	21,136	14,552	35,688
Non-MSA	0	0	0
South Carolina			
Total	75,661	38,922	114,583
MSA	52,037	38,746	90,783
Non-MSA	23,624	176	23,800
South Dakota			
Total	12,377	17,837	30,214
MSA	5,822	15,311	21,133
Non-MSA	6,556	2,526	9,082
Tennessee			
Total	120,535	100,127	220,662
MSA	94,172	82,358	176,530
Non-MSA	26,362	17,768	44,130
Texas			
Total	361,994	172,796	534,790
MSA	341,628	165,350	506,978
Non-MSA	20,366	7,446	27,812

Table A.27 Employment Growth in Metropolitan Statistical Areas (MSAs) and Non-MSAs by State, 1982–1986—Continued

State	Small Firms (1–20) Employment	Large Firms (500+) Employment	All Firms
Utah			
Total	29,440	14,437	43,877
MSA	25,242	12,635	37,877
Non-MSA	4,198	1,802	6,000
Vermont			
Total	27,536	5,891	33,427
MSA	5,206	1,410	6,616
Non-MSA	22,330	4,481	26,811
Virginia			
Total	146,864	54,614	201,478
MSA	131,977	49,637	181,614
Non-MSA	14,887	4,977	19,864
Washington			
Total	85,202	40,822	126,024
MSA	70,425	37,449	107,874
Non-MSA	14,777	3,373	18,150
West Virginia			
Total	15,350	10,611	25,961
MSA	11,271	8,139	19,410
Non-MSA	4,079	2,472	6,551
Wisconsin			
Total	84,661	41,196	125,857
MSA	71,686	37,379	109,065
Non-MSA	12,975	3,817	16,792
Wyoming			
Total	9,580	2,297	11,877
MSA	6,593	1,310	7,903
Non-MSA	2,985	987	3,972

Note: Data exclude agricultural employment. Data may not add to totals because of suppression of data for confidentiality reasons.

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, using data from U.S. Department of Commerce, Bureau of the Census, County Business Patterns, 1982 and 1986.

Table A.28 Average Annual Change in Productivity for Selected Small-Business-Dominated Industries, 1972–1988 (Percent)

SIC Code	Industry	Average Annual Change in Productivity	Small-Business Share of Industry Employment	Total Industry Employment in Small Business
573	Radio, Television and Music Stores	3.2	84.86	192,601
571	Household Appliance Stores	3.1	76.55	174,199
5621	Women's Ready-to-Wear Stores	4.2	68.85	286,881
5541	Gasoline Service Stations	3.9	93.12	307,284
56	Apparel and Accessory Stores	2.9	59.62	555,042
5251	Hardware Stores	3.0	86.96	137,740
5611	Men's and Boys' Clothing Stores	2.3	80.17	93,543
2434	Wood Kitchen Cabinets	2.8*	79.35	54,947
2875	Fertilizers, Mixing Only	1.8*	58.30	4,604
566	Shoe Stores	3.6	70.93	81,316
2521	Wood Office Furniture	3.3*	61.35*	23,954
57	Furniture and Home Furnishings Stores	3.2	83.27	598,198
5511	Franchised New Car Dealers	1.1	93.77	634,773
3271, 3272	Concrete Products	1.0*	66.43*	63,077
3441	Fabricated Structural Metal	0.8*	71.86	73,757

Table A.28 *Average Annual Change in Productivity for Selected Small-Business-Dominated Industries, 1972–1988 (Percent)*—Continued

SIC Code	Industry	Average Annual Change (Percent)	Small Business Share of Industry Employment	Total Industry Employment in Small Business
3273	Ready-Mixed Concrete	0.4*	74.24	52,848
753	Automotive Repair Shops	−0.1	96.18	406,955
723, 724	Beauty and Barber Shops	0.3	97.74	167,360
58	Eating and Drinking Places	−0.7	79.49	2,701,513
2431	Millwork	−0.7*	61.86	60,736
592	Liquor Stores	−0.7	98.05	109,949
721	Laundry and Cleaning Services	−1.0	80.75	254,509
5912	Drug and Proprietary Stores	−1.7	65.15	254,189
546	Retail Bakeries	−2.1	89.47	92,371

*Average annual percent change from 1972 through 1987 only.

Note: Productivity is measured by the average annual output per employee hour. Businesses with fewer than 500 employees are categorized as small businesses.

Source: For productivity: U.S. Department of Labor, Bureau of Labor Statistics, "BLS Reports on Productivity by Industry in 1988," *News* USDL-89-570 (November 28 1989); for employment and employment share: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, version 8 (1989).

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)*

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
U.S. Total				
Wage-and-Salary	2,420,439	2,570,990	6.22	
Proprietors' Income	287,996	305,907	6.22	
Total Earned Income	2,708,435	2,876,897	6.22	
Region I				
Wage-and-Salary	158,856	167,108	5.19	
Proprietors' Income	17,731	18,691	5.42	
Total Earned Income	176,587	185,799	5.22	
Connecticut				
Wage-and-Salary	45,301	47,532	4.92	43
Proprietors' Income	4,176	4,401	5.37	33
Total Earned Income	49,477	51,933	4.96	43
Maine				
Wage-and-Salary	10,183	11,053	8.54	7
Proprietors' Income	1,610	1,700	5.61	28
Total Earned Income	11,793	12,753	8.14	7
Massachusetts				
Wage-and-Salary	77,414	80,974	4.60	47
Proprietors' Income	8,536	9,024	5.72	26
Total Earned Income	85,950	89,998	4.71	46
New Hampshire				
Wage-and-Salary	11,279	11,854	5.10	42
Proprietors' Income	1,679	1,724	2.71	48
Total Earned Income	12,957	13,578	4.79	45
Rhode Island				
Wage-and-Salary	9,796	10,418	6.35	23
Proprietors' Income	1,020	1,088	6.62	11
Total Earned Income	10,816	11,505	6.37	21
Vermont				
Wage-and-Salary	4,883	5,278	8.09	9
Proprietors' Income	710	755	6.30	15
Total Earned Income	5,593	6,033	7.87	9
Region II				
Wage-and-Salary	317,960	334,223	5.11	
Proprietors' Income	35,185	38,163	8.46	

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)*—Continued

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
Total Earned Income	353,145	372,186	5.45	
New Jersey				
Wage-and-Salary	95,816	101,665	6.10	27
Proprietors' Income	9,928	10,558	6.34	14
Total Earned Income	105,743	112,223	6.13	26
New York				
Wage-and-Salary	222,144	232,558	4.69	45
Proprietors' Income	25,258	27,606	9.30	3
Total Earned Income	247,402	260,163	5.16	41
Region III				
Wage-and-Salary	266,824	285,398	6.96	
Proprietors' Income	28,332	29,969	5.78	
Total Earned Income	295,155	315,367	6.85	
Delaware				
Wage-and-Salary	7,665	8,435	10.04	4
Proprietors' Income	756	755	-0.20	50
Total Earned Income	8,422	9,190	9.12	4
District of Columbia				
Wage-and-Salary	21,570	23,113	7.15	34
Proprietors' Income	1,197	1,280	6.93	6
Total Earned Income	22,767	24,393	7.14	14
Maryland				
Wage-and-Salary	50,330	54,114	7.52	12
Proprietors' Income	4,735	5,059	6.84	8
Total Earned Income	55,065	59,173	7.46	10
Pennsylvania				
Wage-and-Salary	110,718	117,811	6.41	21
Proprietors' Income	14,205	15,003	5.62	37
Total Earned Income	124,923	132,814	6.32	22
Virginia				
Wage-and-Salary	64,639	69,517	7.55	11
Proprietors' Income	6,065	6,438	6.14	19
Total Earned Income	70,704	75,954	7.43	11

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)*—Continued

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
West Virginia				
Wage-and-Salary	11,902	12,408	4.25	50
Proprietors' Income	1,373	1,435	4.50	38
Total Earned Income	13,275	13,843	4.28	49
Region IV				
Wage-and-Salary	370,413	395,074	6.66	
Proprietors' Income	43,413	46,002	5.96	
Total Earned Income	413,825	441,076	6.58	
Alabama				
Wage-and-Salary	31,017	32,917	6.13	26
Proprietors' Income	3,513	3,714	5.73	25
Total Earned Income	34,529	36,631	6.09	27
Florida				
Wage-and-Salary	166,260	113,710	7.01	16
Proprietors' Income	12,314	13,266	7.74	5
Total Earned Income	118,573	126,976	7.09	15
Georgia				
Wage-and-Salary	62,225	65,873	5.86	33
Proprietors' Income	6,407	6,761	5.53	30
Total Earned Income	68,631	72,633	5.83	32
Kentucky				
Wage-and-Salary	26,736	29,440	6.37	22
Proprietors' Income	3,739	3,945	5.49	31
Total Earned Income	30,476	32,385	6.26	23
Mississippi				
Wage-and-Salary	15,561	16,597	6.66	19
Proprietors' Income	2,343	2,478	5.75	24
Total Earned Income	17,904	19,075	6.54	19
North Carolina				
Wage-and-Salary	59,084	63,257	7.06	15
Proprietors' Income	6,563	6,841	4.23	44
Total Earned Income	65,648	70,098	6.78	18
South Carolina				
Wage-and-Salary	28,004	30,170	7.74	10
Proprietors' Income	2,837	2,945	3.79	45
Total Earned Income	30,841	33,114	7.37	12

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)*—Continued

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
Tennessee				
Wage-and-Salary	41,527	44,111	6.22	25
Proprietors' Income	5,698	6,054	6.25	18
Total Earned Income	47,224	50,164	6.23	24
Region V				
Wage-and-Salary	457,288	484,223	5.89	
Proprietors' Income	47,550	50,726	6.68	
Total Earned Income	504,838	534,948	5.96	
Illinois				
Wage-and-Salary	123,653	131,045	5.98	31
Proprietors' Income	15,047	16,216	7.77	4
Total Earned Income	138,700	147,261	6.17	25
Indiana				
Wage-and-Salary	49,691	53,108	6.88	18
Proprietors' Income	5,394	5,716	5.98	20
Total Earned Income	55,084	58,824	6.79	17
Michigan				
Wage-and-Salary	93,326	98,950	6.03	29
Proprietors' Income	7,845	8,309	5.92	23
Total Earned Income	101,171	107,259	6.02	29
Minnesota				
Wage-and-Salary	44,272	46,876	5.88	32
Proprietors' Income	4,529	4,814	6.29	17
Total Earned Income	48,801	51,691	5.92	31
Ohio				
Wage-and-Salary	102,959	108,346	5.23	40
Proprietors' Income	9,952	10,602	6.52	13
Total Earned Income	112,911	118,948	5.35	38
Wisconsin				
Wage-and-Salary	43,388	45,897	5.78	35
Proprietors' Income	4,783	5,069	5.96	22
Total Earned Income	48,171	50,966	5.80	33
Region VI				
Wage-and-Salary	227,852	240,162	5.40	

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)*—Continued

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
Proprietors' Income	32,046	33,339	4.03	
Total Earned Income	259,899	273,501	5.23	
Arkansas				
Wage-and-Salary	15,484	16,365	5.83	34
Proprietors' Income	2,387	2,452	2.70	49
Total Earned Income	17,851	18,817	5.41	37
Louisiana				
Wage-and-Salary	30,568	31,933	4.47	48
Proprietors' Income	4,187	4,370	4.36	40
Total Earned Income	34,755	36,303	4.45	47
New Mexico				
Wage-and-Salary	10,863	11,426	5.18	41
Proprietors' Income	1,234	1,278	3.52	46
Total Earned Income	12,098	12,703	5.01	42
Oklahoma				
Wage-and-Salary	22,862	23,924	4.65	46
Proprietors' Income	3,824	3,933	2.91	47
Total Earned Income	26,686	27,860	4.40	48
Texas				
Wage-and-Salary	148,095	156,515	5.69	36
Proprietors' Income	20,414	21,305	4.36	41
Total Earned Income	168,510	177,819	5.52	36
Region VII				
Wage-and-Salary	102,424	108,124	5.57	
Proprietors' Income	15,062	15,849	5.23	
Total Earned Income	117,486	123,973	5.52	
Iowa				
Wage-and-Salary	21,189	22,592	6.62	20
Proprietors' Income	3,670	3,869	5.42	32
Total Earned Income	24,859	26,460	6.44	20
Kansas				
Wage-and-Salary	21,036	22,052	4.83	44
Proprietors' Income	3,065	3,212	4.78	36
Total Earned Income	24,101	25,264	4.82	44

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)—Continued*

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
Missouri				
Wage-and-Salary	47,313	49,821	5.30	39
Proprietors' Income	6,380	6,738	5.61	29
Total Earned Income	53,692	56,559	5.34	33
Nebraska				
Wage-and-Salary	12,887	13,660	6.00	30
Proprietors' Income	1,947	2,031	4.31	42
Total Earned Income	14,834	15,691	5.78	34
Region VIII				
Wage-and-Salary	63,325	67,115	5.99	
Proprietors' Income	8,933	9,369	4.88	
Total Earned Income	72,258	76,483	5.85	
Colorado				
Wage-and-Salary	32,765	34,758	6.08	28
Proprietors' Income	4,361	4,583	5.09	34
Total Earned Income	37,126	39,341	5.97	30
Montana				
Wage-and-Salary	5,091	5,364	5.35	38
Proprietors' Income	1,018	1,066	4.77	37
Total Earned Income	6,109	6,430	5.25	40
North Dakota				
Wage-and-Salary	4,472	4,663	4.28	49
Proprietors' Income	732	763	4.27	43
Total Earned Income	5,204	5,426	4.28	50
South Dakota				
Wage-and-Salary	4,294	4,564	6.28	26
Proprietors' Income	914	961	5.09	33
Total Earned Income	5,209	5,525	6.07	29
Utah				
Wage-and-Salary	12,897	13,839	7.30	13
Proprietors' Income	1,412	1,501	6.30	16
Total Earned Income	14,309	15,340	7.20	11
Wyoming				
Wage-and-Salary	3,806	3,928	3.21	51
Proprietors' Income	497	495	−0.35	51
Total Earned Income	4,303	4,423	2.80	51

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income by SBA Region and State, 1988 and 1989 (Millions of Dollars)*

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
Region IX				
Wage-and-Salary	374,412	401,029	7.11	
Proprietors' Income	48,499	51,797	6.80	
Total Earned Income	422,911	452,826	7.07	
Arizona				
Wage-and-Salary	31,042	32,803	5.67	37
Proprietors' Income	3,053	3,187	4.41	39
Total Earned Income	34,095	35,990	5.56	35
California				
Wage-and-Salary	319,481	341,539	6.90	17
Proprietors' Income	43,212	46,150	6.80	9
Total Earned Income	362,693	387,689	6.89	16
Hawaii				
Wage-and-Salary	11,750	13,023	10.84	3
Proprietors' Income	1,236	1,364	10.36	1
Total Earned Income	12,986	14,387	10.79	3
Nevada				
Wage-and-Salary	12,139	13,665	12.57	2
Proprietors' Income	999	1,096	9.71	2
Total Earned Income	13,138	14,760	12.35	1
Region X				
Wage-and-Salary	81,090	88,534	9.18	
Proprietors' Income	11,247	12,002	6.71	
Total Earned Income	92,337	100,536	8.88	
Alaska				
Wage-and-Salary	6,604	7,448	12.77	1
Proprietors' Income	1,229	1,310	6.57	12
Total Earned Income	7,834	8,758	11.80	2
Idaho				
Wage-and-Salary	6,662	7,239	8.67	6
Proprietors' Income	1,241	1,315	5.98	21
Total Earned Income	7,902	8,554	8.25	6
Oregon				
Wage-and-Salary	23,359	25,258	8.16	8

Table A.29 *Wage-and-Salary and Nonfarm Proprietorship Income By SBA Region and State, 1988 and 1989 (Millions of Dollars)—Continued*

Region/State	1988	1989	Percent Change 1988–1989	Rank 1988–1989
Proprietors' Income	3,339	3,563	6.72	10
Total Earned Income	26,692	28,821	7.98	8
Washington				
Wage-and-Salary	44,471	48,590	9.26	9
Proprietors' Income	5,439	5,814	6.90	7
Total Earned Income	49,910	54,404	9.01	5

Note: Nonfarm proprietorship data include partnerships. Personal income data exclude employer pension contributions and other nonlabor income. Detail may not add to total because of rounding.

Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from unpublished data prepared by the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division, May 1990.

Table A.30 *Sales by Size of Firm, 1986 (Percent)*

Sales Class of Firm (Thousands of Dollars)	Employment Size of Enterprise										
	Total	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000-4,999	5,000+
Totals	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1<2[illegible]	3.89	6.2	0.8	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
20<50	6.85	10.4	1.1	0.4	0.1	0.1	0.1	0.0	0.1	0.0	0.0
50<100	14.60	23.0	4.3	1.0	0.4	0.3	0.2	0.2	0.1	0.0	0.1
100<500	44.40	47.0	39.8	20.1	10.1	3.0	1.6	1.1	0.0	0.2	0.1
500<1,000	12.41	5.1	13.0	26.9	20.4	10.2	3.6	1.0	0.3	0.2	0.1
1,000<2,000	6.07	1.0	8.0	20.0	23.0	20.7	7.4	1.6	0.0	0.3	0.2
2,000<5,000	5.72	0.7	3.4	13.0	23.5	31.0	20.0	3.8	1.3	0.3	0.2
5,000<10,000	2.03	0.1	0.6	2.2	6.9	14.0	24.1	6.6	2.0	0.5	0.2
10,000<25,000	1.20	0.1	0.2	0.7	3.2	10.9	26.9	29.3	6.1	2.2	0.0
25,000+	0.67	0.0	0.1	0.3	0.8	2.5	14.2	37.8	88.3	96.7	99.3

Note: Detail may not add to totals because of rounding.
Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data Base, USEEM file, 1988.

Table A.31 *Age of Firms in the Small Business Data Base, 1986*

Age in Years	Number	Percentage	Cumulative Percentage*
Total with Age Reported	5,421,228	—	—
0–2	391,798	7.23	7.23
3–6	948,845	17.50	24.73
7–11	967,829	17.85	42.58
12–16	772,193	14.24	56.82
17–21	474,800	8.76	65.58
22–26	271,108	5.00	70.58
27–31	213,374	3.94	74.52
32–36	149,704	2.76	77.28
>36	313,926	5.79	83.07

*Cumulative percentages represent totals of firms aged 0 to last year shown in row.

Note: Age is reported only for firms, not subsidiaries or branches. Also, percentage distribution by age will not equal 100 because of the omission of firms for which age was not reported.

Source: U.S. Small Business Administration, Office of Advocacy, Small Business Data base, USEEM file, version 9, 1989.

Appendix **B**

Small Business Financing

Synopsis

After peaking in April 1989, interest rates declined for the rest of the year, with the prime rate reaching 10.5 percent in December. Loan rates for small businesses followed these changes. While borrowing by nonfinancial corporations remained strong throughout the year, borrowing by noncorporate businesses—that is, partnerships and sole proprietorships—declined. The volume of commercial and industrial loans made by small banks increased during the first two quarters of 1989, then tapered off as the economy slowed down after the summer. Future lending activity to small businesses by banks and thrifts will be affected by new "risk-based capital" requirements that come into effect in 1992 as well as by other actions taken by regulatory authorities in response to the financial difficulties experienced by the banking and the thrift industries. The market for initial public offerings increased slightly from 1988 levels, but investments by venture capital funds declined.

Introduction

The U.S. economy continued to grow during the past year; however, the pace of expansion has slowed substantially since the summer of 1989. By the end of the year, the expansion had extended to 28 quarters from the first quarter of 1983. The slower growth should provide healthy and more sustainable growth for the U.S. economy.[1]

Major developments in the financial markets during 1988–1989 included: rising interest rates during the first four months, followed by declining rates over the rest of the year; a rather bullish stock market until a 200-point decline on October 13, 1989; and the collapse of junk bond markets in August 1989.[2] Small business optimism

[1]New private housing starts declined to 1.3 million units in September 1989 from an average of 1.75 million units during 1983–1986. Shipments and new orders of durable manufacturing goods also declined during 1989.

[2]Junk or high-yield bonds are used by some larger small firms; also, overall uncertainty in the financial markets affects business confidence among small firms.

about the economy remained subdued, but the small business financing environment improved as the economy slowed and interest rates declined (Chart B.1).

Interest Rate Movements

The rise in money market rates began accelerating in September 1988 when the Federal Reserve Board instituted tighter monetary policies to curb inflationary expectations. The economy has slowed since, and interest rates began to decline by April 1989. Triple A corporate bond rates fell to 9 percent, the lowest since April 1987, and the prime rate declined to 10.5 percent by December 1990 (Chart B.1).

Loan rates paid by small businesses during this period moved in line with movements in the market rates. Short-term and term loan rates paid by small business declined by about 150 basis points between May and November 1989 after rising steadily beginning in May 1988 (Table B.5). The average spread of small business rates over the prime rate remained at 1 to 2 percent (Tables B.5 and B.6).

Uses of Funds by Major Sectors

Credit demand by major sectors slowed, but remained at a relatively high level during 1989. Rising interest rates during late 1988 and early 1989 and a slower economy beginning in the summer resulted in a decline in borrowings by all major sectors in the economy except the nonfinancial corporate sector, which remained about the same (Table B.2).

Sources and Uses of Funds by Nonfinancial Corporations

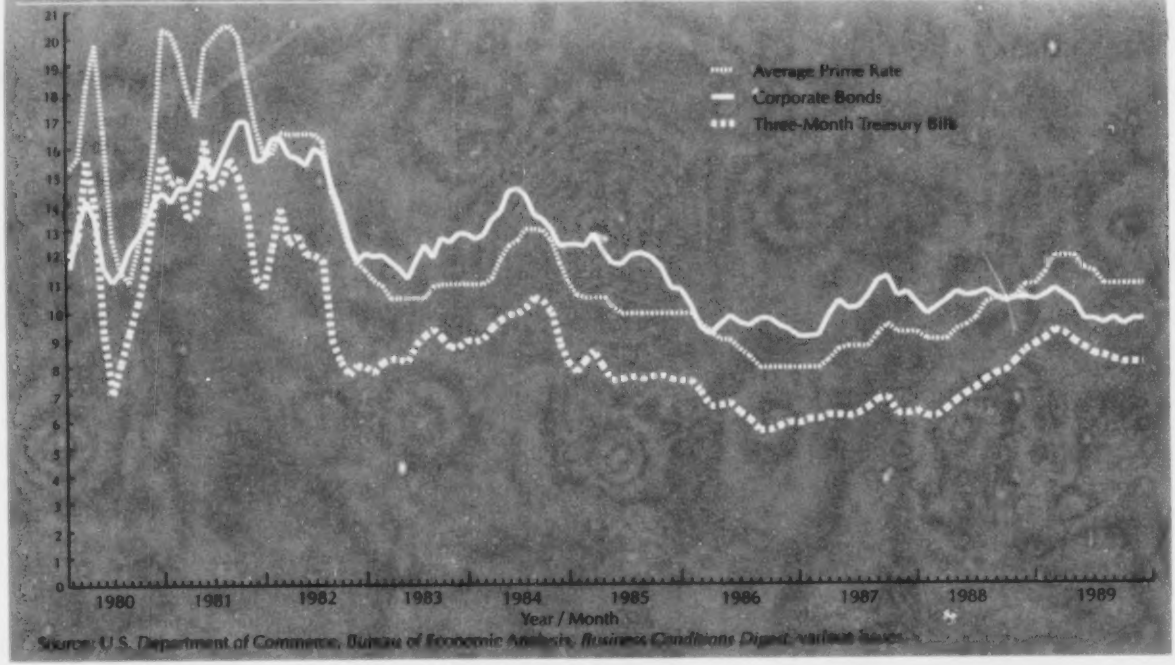
Borrowing by nonfarm, nonfinancial corporations remained strong during 1989.[3] An increase in capital expenditures and, possibly, continued fervor in merger and acquisition activities were the primary causes of the large demand. Funds raised in the debt market amounted to approximately $200 billion during 1988 and 1989.[4]

Increased borrowing by American corporations, as reflected in the rise in debt-to-equity ratios, raised concerns about the financial vulnerability of these corpora-

[3]Information on the sources and uses of funds is available in the Flow of Funds Accounts for nonfinancial corporations and for noncorporate businesses. Small corporations' financing activities are presumed to be similar to those of all nonfinancial corporations during 1989.

[4]Total completed transactions in leveraged buyouts amounted to between $60 and $70 billion in 1988. The net increase in junk bonds outstanding amounted to more than $20 billion.

Chart B.1 *Short-Term and Long-Term U.S. Interest Rates, January 1980–December 1989*



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Business Conditions Digest*, various issues.

tions. With declining interest coverage (net income divided by interest expenses), many corporations can be expected to experience financial difficulties in times of economic distress. The fall-off in the junk bond market since August 1989 has indicated the vulnerability of highly leveraged firms. Nevertheless, most American corporations can be expected to adjust their debt-to-equity ratios in response to the relative costs of equity versus debt financing in a competitive environment.

While profits and depreciation allowances have continued to increase, retained earnings (domestic undistributed profit) by nonfinancial corporations have stayed at relatively low levels during the past four years (Table B.3). In fact, the net worth of American nonfinancial corporations increased at an annual average rate of 2.4 percent between 1983 and 1988, far below the average rate of inflation.[5] The implication of this development for the competitiveness of American industry deserves further examination by researchers and policy makers.[6]

Sources and Uses of Funds by Noncorporate Businesses

Borrowing by the nonfarm, noncorporate sector—that is, sole proprietorships and partnerships—declined further during 1989. Slower economic growth, rising net income, and a falloff in fixed capital expenditures were among the reasons for the decline in demand for financing by the noncorporate sector (Table B.4).

Bank Loans to Small Businesses

As a proxy for commercial loans to small businesses, commercial and industrial (C&I) loans by small banks showed a modest 6.5-percent increase during 1989, slightly higher than the 1988 increase (Table B.7). The demand for business loans by small business has tapered off with the slowdown in the economy since the summer of 1989.

Commercial banks are the most important supplier of debt capital and financial services to small business in the United States. According to a recently completed survey of small business finance, almost all small businesses used

[5]See Board of Governors of the Federal Reserve System, *Balance Sheet for the U.S. Economy 1949–88* (Washington, D.C.: Federal Reserve Board, October 1989), Table 30.

[6]The impact of a decline in a business' net worth on its capital stock is one issue that needs careful consideration. More debt capital and less equity can be used to finance growth in capital stock. The restructuring of a business by means of a leveraged buyout could also result in a decline in net worth without a decline in total assets.

some financial services from commercial banks.[7] A very important development in small business financing evidenced by this survey is that one of every four small businesses has had some line of credit.[8] These survey responses, along with evidence of the growing use of the home equity line of credit for business purposes, indicate that banks are meeting the demand for credit by most small businesses (Table B.8).

The banking industry is experiencing restructuring in response to rapid changes in technology and in the regulatory environment. Asset growth in the banking sector lagged behind the growth for all nonbank financial institutions; total assets increased 8.3 percent annually for commercial banks and 13 percent annually for all nonbank financial institutions during 1983–1988.[9]

Small banks in particular found it difficult to adjust to this new environment. While many very small banks (that is, banks with assets under $25 million) have been bought by larger bank holding companies, many others have failed. In fact, the failure rate for small banks rose from less than 1 percent in 1984 to more than 2 percent during 1987–1988.[10]

It is difficult to ascertain the impact of deregulation and technological change on the economies of small bank operations. The effects of new financial technologies may be both negative and positive. For example, there is evidence that advancements in information processing technology—in telecommunications and automation—have increased the competitiveness of large banks over

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[7]Preliminary results from the National Survey of Small Business Finance, sponsored by the Federal Reserve Board and the U.S. Small Business Administration. A total of 4,500 small firms responded to the telephone survey. A public use tape of the data will be available after the data are edited.

[8]This development is confirmed by the results of a 1987 survey conducted by the National Federation of Independent Business of its members. Some 40 percent reported having had a line of credit. See William J. Dennis, William C. Dunkelberg, and Jeffrey Van Hulle, *Small Business and Banks: The United States* (Washington, D.C.: NFIB Foundation, 1988), 13, Table 3.3.

[9]One explanation for this difference could be the growth of off-balance items (mainly services) as a source of income for large commercial banks. Earnings are increased, but with no increase in total assets.

[10]Number of small banks (with assets under $25 million) declined from 5,645 in 1984 to 3,948 in 1988. See Sherill Shaffer, "Challenges to Small Banks' Survival," Federal Reserve Bank of Philadelphia *Business Review* (September/October 1989), 18, Figure 1.

small banks in providing depository and credit card services.[11] However, small banks can utilize networking arrangements to lower the cost of services by serving as a service delivery agent for larger institutions.

Economic distress in agricultural banking during the early 1980s and the contemporaneous collapse of the real estate market and the energy industry in the Southwest, where most small banks are located, certainly contributed to the large decline in the number of small banks. Nevertheless, the changing regulatory environment has also had a great impact on the survival of these small banks. For example, a recently issued regulation limiting the dollar amount of an institution's lending to less than 5 percent of total equity capital is likely to restrict the ability of many small institutions to make construction loans.[12]

The future effects of the so-called "risk-based capital requirement" on bank lending to small business is also worthy of consideration. All U.S. banks will be required by 1992 to have a minimum capitalization of 8 percent of risk-weighted assets: 4 percent in core equity capital (such as common stockholder's equity and permanent preferred stocks) and 4 percent in other supplementary equity (such as limited-life preferred stocks, etc.). Assets will be weighted by their respective risk in calculating the capital requirement under this regulation. Assets held in cash and government securities are deemed risk-free and assigned a zero weight.[13] First mortgage loans on one- to four-unit residential buildings with adequate collateral will be assigned a 50-percent risk weight. All other loans to private borrowers, including commercial and industrial (C&I) loans, will be assigned a 100-percent risk weight.[14]

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[11]James Kolari and Asghar Zardkoohi, *Small Banks in a Changing Financial Environment*, report no. PB87 119061, prepared by the Texas A & M Research Foundation under contract to U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1986), 56–62.

[12]For a bank with assets of $25 million and a 10 percent equity-to-asset ratio, the maximum amount the bank could extend to an individual borrower would be $125,000 ($25 million x 10 percent x 5 percent = $125,000).

[13]For business loans guaranteed by the Small Business Administration, the guaranteed portion is assigned a 20-percent weight and the nonguaranteed portion, a 100-percent weight.

[14]This implies that a $1 commercial and industrial loan will require 8 cents in equity capital and 92 cents in debt or deposits, while a $1 first mortgage loan will require only 4 cents in equity capital and 96 cents in debt capital.

As long as the cost of equity capital is higher than the cost of funds from debt and deposits, the new regulation will raise the cost of business loans relative to first-mortgage loans. To what extent this requirement will affect asset allocation in a bank's portfolio, particularly small business lending, remains to be seen.[15]

Lending by Other Financial Institutions

Business lending by finance companies continued to grow at rates faster than those for C&I loans by commercial banks. Finance company business loans, which are mostly asset-based, increased in line with the growth in capital expenditures, which continued to increase for nonfinancial corporate businesses during 1989 (Tables B.3 and B.9). Finance companies have always been very active in capital leasing, vehicle loans, and equipment loans.[16]

Commercial and industrial loans by savings and loan associations have grown unevenly, increasing 47 percent during 1988 and then declining 4.8 percent in 1989 (Table B.10). Savings and loan associations have yet to become an active participant in small business lending. Recent turmoil in this industry, as indicated by the expected loss of over $200 billion in the insurance fund and the decline in total assets for the thrift industry, have further slowed the entry of many S&Ls in the small business loan market.[17]

Equity Capital from the Public Markets and Venture Capital Firms

Despite a steady recovery in stock market activities since the collapse of October 1987, the initial public offering market (IPOs) for nonfinancial issuers recovered only slightly from the depressed level of 1988 (Table B.12). New issues, especially the smaller and riskier issues, had difficulty attracting investors in an increasingly uncertain economic environment.

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[15]Mortgage and consumer loans by banks have expanded at a faster rate than that for C&I loans during the past six years. Strong demand for mortgage loans and the development of secondary markets for them are responsible for the increase. As long as banks continue to adjust their portfolios in response to changes in relative risk and return of different loan types, the market should adjust to the changes.

[16]Finance companies rank second in motor vehicle loans and third in capital lease and in equipment loans among financial institutions lending to small firms, according to preliminary tabulations of data from the National Survey of Small Business Finance.

[17]The thrifts have been encouraged to refocus their attention on traditional mortgage lending. New capital requirement standards and lending limits have also affected lending to business by the thrifts.

Investment by venture capital funds in American businesses declined in 1988 to an estimated $3.0 billion, a level maintained in four of the past five years, except 1987. The high level of investment by venture capital firms in 1987 was partially attributed to unprecedented stock market activity in 1986 and during most of 1987 (Table B.13).[18] In 1988, 32 percent of venture capital funds was invested in early stage financing (that is, seed capital, startup, and other early stage financing), 48 percent in business expansion; and 19 percent in leveraged buy-outs or acquisitions (Table B.15).

The venture capital industry has changed in character in the past five years. As new money flows in and large investors begin pressuring fund managers to perform in a shorter period, many managers can no longer be "patient" investors who look for long-term investment in new ventures. This may explain the increased interest in leveraged buy-outs and acquisitions on the part of some larger venture capital companies.

It is difficult, however, to assess the impact of this increased interest in leveraged buy-outs on the availability of funding to new capital ventures in 1988. The slowdown in first-time, early stage investments, especially in seed capital, was more likely to have been caused by the slowdown in the U.S. economy than by competition for funds from leveraged buy-outs.

Other Private Sources of Financing

In addition to these more formal sources of financing from financial institutions, many small businesses rely heavily on informal private sources, such as loans from partners, shareholders, other private individuals, and other businesses, and on equity financing from informal investors. Unfortunately, little information is available about small business' use of these financing sources in 1989.

Conclusion

Borrowing by noncorporate businesses was subdued during 1989 because small businesses were concerned about the state of the economy. Although sales and income remained high, the majority of small business owners were not optimistic about the prospects for economic growth in the immediate future.

Nonfinancial corporations, however, were more opti-

[18] "Venture Capital Disbursements Decline 21 Percent to $3 Billion in 1988," *Venture Capital Journal* (June 1989), 17.

mistic and continued to increase both capital expenditures and external borrowing in response to continued strength in the export market and the capital equipment sector.

Borrowing in the public equity market (IPOs) and from venture capital companies both abated as slower economic growth dampened new venture activities.

Technological and regulatory changes in the financial markets have created a new environment for small banks and small business borrowers. Most small businesses will benefit from these changes as the small business loan market becomes more competitive. Some small businesses in some localities, however, will experience difficulties in obtaining financing in this period of adjustment.

Appendix B Tables

Table B.1	*Major Sources of Business Financing, 1988*
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Table B.14	*Sources of Capital Committed to Independent Venture Funds, 1983–1988*

Table B.15 *Disbursements of Funds by Venture Capital Funds, by Financing Stage, 1986–1988*

Table B.16 *Disbursements to Small Business by Small Business Investment Companies (SBICs) and 301(d) SBICs, 1980–1989*

Table B.1 *Major Sources of Business Financing, 1988[1] (Billions of Dollars)*

	All Business	Small Business
Total Assets[2]	9,617	4,458
Total Debt[2]	4,167	2,077
Total Net Worth[2]	5,450	2,381
Other Debt and Net Worth Estimates		
Commercial Mortgages	660	594[3]
Commercial and Industrial Loans Outstanding[4]	605	303
Trade Credit[5]	578	195
Finance Company Receivables from Businesses	235	NA
Commercial Loans by Federally Insured Savings and Loan Associations	33	NA
Initial Public Offerings of Common Stock[6]	47	26
Venture Capital Pool	31	31

NA = Not available.

[1]All estimates are stock estimates valued at the end of 1988, unless otherwise noted. Small business includes all noncorporate business and small corporations with assets under $10 million.

[2]Estimates by the Federal Reserve Board for nonfarm, nonfinancial corporations and nonfarm, noncorporate businesses. Total assets and net worth for small corporations were estimated by applying 19.7 percent and 16 percent respectively to that of all corporations. Debt is treated as a residual.

[3]These estimates are obtained from sources using different methodologies. They are not strictly comparable and should not be summed for a total.

[4]For nonfarm, noncorporate business only.

[5]Total commercial and industrial loans outstanding of banks other than large weekly reporting banks are used as a proxy for loans to small businesses.

[6]Totals estimated by the Federal Reserve Board.

[7]The total estimated cumulative value of initial public offerings of common stock for the period 1976–1987.

Source: Board of Governors of the Federal Reserve System, *Balance Sheets for the U.S. Economy 1949–1989* (Washington, D.C.: Board of Governors of the Federal Reserve System, October 1988); U.S. Securities and Exchange Commission, Directorate of Economic and Policy Analysis, *Small Business Financing Trends* (Washington, D.C.: U.S. Securities and Exchange Commission, September 1988).

Table B.2 *Credit Borrowing by Borrowing Sector, 1980–1989 (Billions of Dollars)*[1]

Sector	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total	[illegible]	382.4	395.3	836.8	750.7	846.3	811.1	693.8	754.5	695.2
Government										
Federal	79.2	87.6	188.3	186.6	198.8	223.6	215.0	143.8	157.5	145.8
State and Local	11.6	17.9	27.7	23.6	28.1	90.9[2]	36.2	33.6	39.8	21.7
Business										
Farm	15.8	16.3	6.7	3.9	−0.4	−14.5	−16.3	−10.6	−7.5	0.3
Nonfarm Noncorporate	55.8	44.4	71.8	81.9	123.2	129.3	103.2	107.9	87.4	85.5
Nonfinancial Corporate	57.8	103.3	43.9	54.8	169.6	132.4	188.7	145.5	197.5	196.0
Households	117.3	113.9	84.0	186.1	231.5	284.6	289.2	271.9	289.8	258.8

[1]Excluding equity, foreign sector, and borrowing by financial institutions.
[2]Likely to be the result of a large increase in borrowing in the municipal bond market before the enactment of the Tax Reform Act of 1986.
Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Fourth Quarter 1989* (March 1990).

Table B.3 *Major Sources and Uses of Funds by Nonfarm, Nonfinancial Corporate Businesses, 1980–1989 (Billions of Dollars)*

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Before-Tax Profit	181.4	181.4	129.8	159.5	196.0	170.3	156.6	197.2	233.4	217.8
Domestic Undistributed Profit	53.7	50.2	11.6	22.2	41.8	16.7	10.4	7.5	19.4	1.6
Depreciation with Capital Consumption Adjustment	155.2	185.0	213.0	244.2	269.3	306.2	315.9	324.9	334.5	337.9
Total Internal Funds, on Bank Basis	224.6	249.6	237.2	278.2	322.9	335.0	332.7	348.3	380.2	362.6
Net Increase in Liability [illegible]	123.1	137.9	60.7	133.5	158.7	105.0	165.9	139.6	125.9	120.9
Funds Raised in Debt Market	57.8	103.3	43.9	54.8	169.6	132.4	203.7	145.5	197.5	196.0
Net New Equity Issues	12.9	11.5	11.4	28.3	−74.5	−81.5	−80.8	−76.5	−130.5	−130.8
Capital Expenditures	243.2	285.9	255.7	269.9	367.9	338.9	328.8	348.3	380.4	385.6
Net Financial Investment	−24.7	−40.9	−13.7	−11.4	−53.6	−22.0	−46.5	−28.0	−32.9	−43.3

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Fourth Quarter 1989* (March 1990).

Table B.4 *Major Sources and Uses of Funds by Nonfarm Noncorporate Businesses, 1980–1989, (Billions of Dollars)*

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Net Income[a]	172.9	175.8	173.1	204.1	231.1	255.2	274.6	298.4	318.3	327.9
Gross Investment	49.9	57.4	63.8	64.2	67.4	70.5	73.4	79.9	84.4	96.0
Fixed Capital Expenditures	49.7	64.9	67.1	68.6	72.8	75.9	82.9	70.7	63.1	59.1
Changes in Inventories	−3.1	6.6	−1.9	−0.2	8.9	8.3	5.2	3.6	8.0	9.8
Net Financial Investments	3.3	−14.2	−1.4	−4.3	−14.3	−13.7	−14.7	5.6	13.4	27.2
Net Increase in Credit Market Debt	55.8	44.4	71.8	81.9	123.2	129.3	103.2	107.9	87.4	65.9
Mortgages	45.7	23.3	77.0	71.0	88.2	111.0	80.3	80.0	61.3	46.8
Net Investment by Proprietors	−58.8	−38.1	−80.3	−59.8	−86.9	−93.1	−55.3	−91.9	−84.5	−83.0

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Fourth Quarter 1989* (December 1989).

Table B.5 *Short-Term and Long-Term Loan Rates for Small Loans by All Commercial Banks, February 1986–November 1989*[1]

	Short-Term Loans[2]			Term Loans	
	Fixed Rate	Floating Rate	Prime Rate	Fixed Rate	Floating Rate
1989					
February	12.26	12.54	10.93	14.08	12.66
May	13.37	13.46	11.50	13.16	13.74
August	12.67	12.49	10.50	12.42	12.06
November	11.94	11.90	10.50	12.65	12.[illegible]
1988					
February	11.17	10.48	8.51	11.90	10.88
May	10.90	10.38	8.84	11.77	10.62
August	11.43	11.48	9.84	11.53	11.59
November	11.94	11.90	10.05	12.66	12.05
1987					
February	10.51	9.41	7.50	11.04	9.81
May	11.10	9.85	8.25	11.22	10.08
August	10.66	10.15	8.70	12.11	10.15
November	11.29	10.78	8.78	11.93	11.28
1986					
February	12.32	11.46	9.50	13.02	11.77
May	11.34	10.42	8.50	12.28	10.84
August	10.94	9.90	7.90	11.84	9.99
November	10.55	9.51	7.80	11.38	9.41

[1]Small loans refer to loans under $100,000.

[2]Averages of loan rates for three loan sizes: under $25,000, $25,000 to under $50,000, and $50,000 to under $100,000.

Source: Board of Governors of the Federal Reserve System, *Survey of Terms of Bank Lending*, Statistical Release E.2, various issues; and *Federal Reserve Bulletin*, various issues.

Table B.6 *Loan Rates Charged by Banks on Loans Made in August 1989*

	Loan Size (Thousands of Dollars)					
	1–24	25–49	50–99	100–499	500–999	1,000+
Large Banks						
Short-Term Loans						
Fixed Rate	12.10	11.93	11.63	11.23	10.35	10.29
Floating Rate	12.34	12.33	12.21	11.87	11.67	10.92
Term Loans						
Fixed Rate		11.99*		12.09	11.00	11.01
Floating Rate		12.62*		11.95	11.72	11.61
Small Banks						
Short-Term Loans						
Fixed Rate	13.18	12.90	12.18	12.13	10.38	9.90
Floating Rate	12.76	12.55	12.32	12.06	11.85	11.29
Term Loans						
Fixed Rate		12.44*		13.27	11.88	11.07
Floating Rate		12.66*		12.15	12.09	11.58

*These figures are for loan sizes $1–$99,000.

Source: Board of Governors of the Federal Reserve System, Survey of Terms of Bank Lending, Statistical Release E.2, September 21, 1989.

Table B.7 *Commercial and Industrial Loans by Large Weekly Reporting and Other Commercial Banks, December 1982–December 1989 (Billions of Dollars)*[1]

	All Banks	Large Weekly Reporting Banks		Other Banks		Annual Change in GNP Deflator Percent
		Amount	Change (Percent)	Amount	Change (Percent)	
December 1989	641.6	318.8	5.6	322.8	6.5	3.7
December 1988	605.0	302.0	8.1	309.0	4.5	4.0
December 1987	586.4	279.5	−3.3	289.9	16.0	3.1
December 1986	539.0	289.1	11.2	249.9	3.2	2.2
December 1985	502.1	260.0	3.4	242.1	8.1	3.1
December 1984	474.9	251.4	12.3	223.9	16.7	3.4
December 1983	415.7	223.9	2.5	191.8	7.9	3.6
December 1982	396.2	218.5		177.7		

[1]Not seasonally adjusted. Large weekly reporting banks are banks with domestic assets of $1.4 billion or more on December 31, 1982.
[2]Changes from the fourth quarter of the previous year.
Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, various issues; idem, "Revised Bank Credit Series," March 9, 1988; and U.S. Department of Commerce, Bureau of Economic Analysis, *Business Conditions Digest*, various issues.

Table B.8 *Financial Services Used by Small Businesses: 1987*

Financial Service	Percentage of Firms Obtaining Services from:			Percentage of Services from:	
	Any Source	Nonbank Firms	Nonlocal Firms	Nonbank Firms	Nonlocal Firms
Checking	97.2	7.7	10.2	7.9	10.5
Saving	25.0	6.7	13.9	26.8	55.6
Leasing	9.4	5.7	5.2	60.6	55.3
Line of Credit	25.9	2.8	4.4	10.8	17.0
Mortgage	18.4	3.6	3.6	19.6	19.6
Motor Vehicle Loan	26.2	17.4	10.0	43.5	38.2
Equipment Loans[1]	14.4	3.6	4.6	25.0	31.9
Other Loans	14.3	2.0	2.1	14.0	14.7
Other Services:					
Transactions[2]	47.4	3.4	5.8	7.2	12.2
Cash Management Services[3]	14.9	1.1	1.8	7.4	10.7
Credit Services[4]	7.7	1.1	1.7	14.3	22.1
Brokerage Services	3.6	3.0	1.0	83.3	27.8
Trust Services	3.8	0.8	0.7	21.1	18.4

[1]Equipment loans include any loans secured by equipment other than motor vehicle loans.
[2]Currency and coin, credit card processing, and night depository.
[3]Cash management, lockbox, and wire transfer.
[4]Letters of credit and bankers' acceptances, sales finance and factoring.
Source: Preliminary tabulation from the National Survey of Small Business Finance, sponsored by the Federal Reserve Board and the U.S. Small Business Administration, 1989.

Table B.9 *Business Loans Outstanding from Finance Companies, December 1980–December 1989*

	Total Receivables Outstanding		Annual Change in GNP Deflator[1] (Percent)
	Billions of Dollars	Change (Percent)	
December 1989	251.8	9.9	3.7
December 1988	234.5	13.9	4.0
December 1987	205.8	19.6	3.1
December 1986	172.1	9.3	2.2
December 1985	157.5	14.3	3.1
December 1984	137.8	21.9	3.4
December 1983	113.4	12.9	3.6
December 1982	100.4	0	5.2
December 1981	100.3	11.1	8.7
December 1980	90.3		

[1]Changes from the fourth quarter of the year before.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, Tables 1.51 and 1.52, various issues; and U.S. Department of Commerce, Bureau of Economic Analysis, *Business Conditions Digest*, various issues.

Table B.10 *Outstanding Nonmortgage Commercial and Industrial Loans Made by Federally Insured Savings and Loan Associations, December 1984–December 1989 (Billions of Dollars)*

	Total Nonmortgage Commercial and Industrial Loans	
	Amount	Change (Percent)
December 1989	31.6	-4.8
December 1988	33.2	47.0
December 1987	22.6	-1.0
December 1986	22.8	39.0
December 1985	16.4	45.1
December 1984	11.3	

Source: Federal Home Loan Bank Board, Office of Policy and Economic Research, Statistics Division, "Quarterly Report Aggregate Tables," various dates.

Table B.11 *Effective Registrations for Cash Sales by Type, 1980–August 1988 (Millions of Dollars)*[1]

	Number of Issues	Total Value	Bonds, Debentures, and Notes[2]	Preferred Stock	Common Stock[3]	All Other Equity[4]
Total Registered Offerings						
1988 January–August	2,289	150,148	113,069	6,446	14,363	18,270
1987 January–August	2,746	175,113	124,290	7,688	25,274	17,863
1987	4,076	260,182	187,855	10,728	32,585	29,014
1986	3,934	238,469	17,360	11,370	30,897	24,842
1985	2,294	131,124	88,981	6,414	17,232	18,497
1984	2,128	93,966	68,357	3,868	7,937	13,804
1983	2,925	100,549	69,305	7,593	27,921	15,732
1982	1,946	91,737	68,916	4,667	12,956	10,198
1981	1,810	82,781	56,224	1,539	14,079	10,939
1980	1,629	63,335	44,534	3,239	11,184	4,378

1988 January–August	716	19,960	3,546	1,058	3,460	11,[illegible]
1987 January–August	1,079	24,830	3,961	448	8,323	12,098
1987	1,519	40,836	7,257	396	11,292	21,691
1986	1,595	40,333	6,089	350	10,924	22,970
1985	1,088	27,138	4,748	113	5,467	16,811
1984	1,091	19,074	2,978	23	3,878	12,570
1983	1,300	23,052	1,231	58	7,496	14,267
1982	737	11,182	1,784	3	1,533	7,942
1981	891	16,938	1,575	12	3,152	10,199
1980	584	8,623	1,210	4	1,249	6,160

[1]Includes only public offerings of securities for cash by U.S. businesses pursuant to a registration statement declared effective by the Securities and Exchange Commission.
[2]Primarily limited partnership interests.
[3]Excludes pass-through certificates and floating rate notes for IPOs.
[4]Excludes closed-end funds for IPOs.
[5]Initial Public Offerings (IPOs) of securities under the Securities Act of 1933.
Note: Detail may not add to totals because of rounding.
Source: U.S. Securities and Exchange Commission, Directorate of Economic and Policy Analysis, "Small Business Financing Trends" (Washington, D.C.: U.S. Securities and Exchange Commission, special tabulations for the Office of Advocacy, U.S. Small Business Administration, September 1988). This table is reproduced from the 1989 State of Small Business. The SEC is not able to provide an update of this table because the data are no longer maintained by the Commission.

Table B.12 *Initial Public Offerings by All and Small Issuers, 1984–November 1989 (Millions of Dollars)*[1]

	Total Issues		Bonds, Debentures, and Notes		Common Stock		Other	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Offerings by All Issuers								
1/1/89–11/17/89	159	5,013.7	—	—	158	5,008.4	1	5.3
1988	226	5,935.7	—	—	225	5,932.8	1	2.9
1987	524	14,494.2	4	120.0	517	14,231.3	3	142.8
1986	711	18,417.0	8	311.6	700	18,085.9	3	19.5
1985	357	8,387.9	2	32.5	353	8,347.9	2	7.5
1984	356	3,809.6	1	2.0	355	3,807.6	—	—

Offerings by Issuers with Assets of $10 Million or Less

1/1/89–11/17/89	86	1,165.2	—	—	86	1,165.2	—	—
1988	110	1,444.7	—	—	109	1,441.8	1	2.9
1987	261	3,315.0	2	45.0	257	3,259.0	2	11.0
1986	352	3,739.2	4	51.6	346	3,678.6	2	9.0
1985	191	3,120.1	1	2.5	188	3,110.1	2	7.5
1984	356	3,809.8	1	2.5	355	3,807.6	—	—

Offerings by Nonfinancial Issuers with Assets of $10 Million or Less

1/1/89–11/17/89	78	1,115.5	—	—	78	1,115.5	—	—
1988	84	913.7	—	—	84	913.7	—	—
1987	228	2,385.7	2	45.0	224	2,329.7	2	11.0
1986	295	2,541.3	4	51.6	289	2,480.7	2	9.0
1985	154	979.8	1	2.5	151	969.8	2	7.5
1984	299	3,016.7	1	2.0	298	3,014.7	—	—

[1]Excludes closed-end funds. Registered offerings data from the Securities and Exchange Commission are no longer available. Data provided by Securities Data Company are not as inclusive as those registered with the SEC.
Source: Special tabulation from Securities Data Company, Inc.

Table 8.13 *New Commitments, Disbursements, and Total Capital Pool of the Venture Capital Industry, 1980–1989 (Billions of Dollars)*

Year	New Commitments to Venture Capital Firms	Disbursements to Funded Companies	Total Investment Capital Pool At End of Year*
1989	2.4	NA	33.4
1988	2.9	3.0	31.1
1987	4.9	3.8	29.0
1986	4.5	2.9	24.1
1985	3.3	2.6	19.6
1984	4.2	3.0	16.3
1983	4.5	2.8	12.1
1982	1.7	1.8	6.7
1981	.3	1.4	NA
1980	0.9	1.1	NA

NA = Not available.

*The capital pool at year-end should equal the total pool at the end of the previous year plus new commitments, minus the amount of net withdrawal (or liquidation) from the funds. For 1983, an additional $600 million was identified which had not been included in the prior estimate.

Source: Capital Publishing Corporation, *Venture Capital Journal*, various issues.

Table B.14 *Sources of Capital Committed to Independent Venture Funds, 1983–1988 (Percent)*

	1983	1984	1985	1986	1987	1988
Total (Billions of Dollars)	3.4	3.2	2.3	3.3	4.2	2.8
Share Contributed by:						
Pension Funds	31	34	33	50	39	47
Foreign Sources	16	18	23	11	14	13
Corporations	12	14	12	11	10	12
Endowments	8	6	8	6	10	11
Individuals	21	15	13	12	12	8
Insurance Companies	12	13	11	10	15	9
Total	100	100	100	100	100	100

Source: Capital Publishing Corporation, *Venture Capital Journal*, various issues.

Table B.15 *Disbursements of Funds by Venture Capital Funds, by Financing Stage, 1986–1988 (Percentage of Deals)*

	1988		1987		1986	
	Number	Dollars	Number	Dollars	Number	Dollars
Seed	6	2	5	2	6	2
Startup	12	11	13	11	16	16
Other Early Stage	20	19	21	16	17	15
Total Early Stage	38	32	39	29	39	33
Expansion	53	48	49	47	44	44
LBO/Acquisition	6	19	6	19	10	18
Other	3	1	6	5	7	5
Total Disbursements:						
Percent	100	100	100	100	100	100
Billions of Dollars	—	3.0	—	3.8	—	2.9

Source: Capital Publishing Company, *Venture Capital Journal*, various issues.

Table B.16 *Disbursements to Small Business by Small Business Investment Companies (SBICs) and 301(d) SBICs, 1980–1989 (Millions of Dollars)*

	Total		SBICs		301(d)	
	Number	Amount	Number	Amount	Number	Amount
1989	3,322	690.0	1,876	542.4	1,446	147.6
1988	3,724	750.9	2,227	614.4	1,497	136.5
1987	4,128	680.5	2,522	537.9	1,606	142.6
1986	4,333	620.8	2,675	75.9	1,658	144.9
1985	4,205	542.3	2,756	434.6	1,449	107.7
1984	3,990	513.9	2,755	425.5	1,235	88.0
1983	3,247	468.8	2,464	412.9	783	55.9
1982	2,941	369.9	2,177	322.9	764	47.0
1981	3,176	387.1	2,434	332.7	742	54.4
1980	2,637	337.4	2,090	295.2	547	42.2

Note: 301(d) companies are minority or economically disadvantaged Small Business Investment Companies.
Source: U.S. Small Business Administration, Investment Division.

Appendix C

Procurement

Synopsis

Fiscal Year 1988 brought a decline for the second year in a row in the share of federal prime contract actions (that is, those over $25,000) awarded to small businesses. At 14.7 percent, this share was the second lowest percentage of any year out of the past 10. Total federal procurement of goods and services, however, has been declining each year for the past three years.

While the total small business portion of contract dollars has declined by nearly one percentage point in the past two years, minority- and women-owned firms have continued to enjoy two straight years of healthy growth in the dollar volume of contract awards. However, federal contract awards to minority- and women-owned firms still account for a small portion of total federal procurement dollars.

Small firms continued to enlarge their percentage share of construction and service awards in FY 1988, although the largest single source of awards, in terms of dollar value, remained their successful bids on contracts for supplies and equipment. Awards for federal research and development remained the least likely area for small firms to penetrate, although the percentage of R&D contracts awarded to small companies in FY 1988 was the second highest in the past seven years.

Despite small business' difficulty in winning federal contract actions over $25,000, recent research indicates that small business is a prime beneficiary of the Office of Management and Budget's A-76, or privatization, contracting program. The small business sector was a major contributor to the cost savings exhibited in a review of several hundred A-76 contracts in the Defense Department and eight major civilian departments or agencies over a three-year period. Small business was also a major beneficiary in the A-76 review, having won 70 percent of the total number of contracts and perhaps as much as one-half of total dollars.

Introduction

In the aggregate, small businesses provided nearly one-third (32 percent, or $62.3 billion) of the $194.9 billion in goods and services purchased under contract by the

federal government in Fiscal Year 1988.[1] Small firms were recipients of $25.7 billion in actions over $25,000; $9.6 billion in actions of less than $25,000; and $27.0 billion in subcontracting awards providing goods and services to prime contractors working, in turn, for the federal government.[2] The $194.9 billion in federal contract awards represents 17.4 percent of the total FY 1988 federal government expenditures of $1,118 billion, or about 4 percent of the Nation's gross national product.[3]

Size of Federal Contract Actions

The federal procurement process involves a large number of relatively small purchases and a small number of very substantial purchases. Based on direct contract action only (that is, awards over and under $25,000), more than 98 percent of the total number of FY 1988 contract actions were in purchases of less than $25,000. These smaller actions accounted for less than 11 percent of the dollar volume for the period (Chart C.1). Conversely, 89.3 percent of the FY 1988 dollar volume was transacted in the 1.8 percent of contract actions of more than $25,000.[4]

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[1]Small business is defined here as any concern organized for profit that, including its affiliates, is independently owned and operated, is not dominant in the industry in which the procurement is classified, and can further qualify under the criteria set forth in the SBA's Rules and Regulations, Part 121.3-8, "Definition of Small Business for Government Procurement" (revision no. 14, effective February 9, 1984). Size criteria vary from industry to industry, as defined in the 1987 *Standard Industrial Classification Manual*. In general, however, a business bidding on a government contract is regarded as small if it has less than 500 employees.

[2]Procurement data (other than subcontract awards) are compiled and reported annually by the Federal Procurement Data Center in *Federal Procurement Data System Standard Report* (Washington, D.C.: U.S. Government Printing Office, latest edition February 2, 1988). Data on subcontracting awards are based of federal agencies reports required by Public Law 95-507, Section 221(h). Reports/Data are published annually by the SBA's Office of Procurement Assistance in *Annual Report to the Congress on Fiscal Year Procurement Preference Goals and Accomplishments* (Washington, D.C.: U.S. Government Printing Office, latest edition 1989).

[3]Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, 1988* (Washington, D.C.: U.S. Government Printing Office, 1989), 2-2.

[4]The term used in discussing federal procurement data is "contract actions," which differs from "initial contract awards" because a contract may involve more than one action. A modification to an "initial contract award" is a separate action, for example, and may involve the obligation of funds, in which case it is reported to the Federal Procurement Data Center.

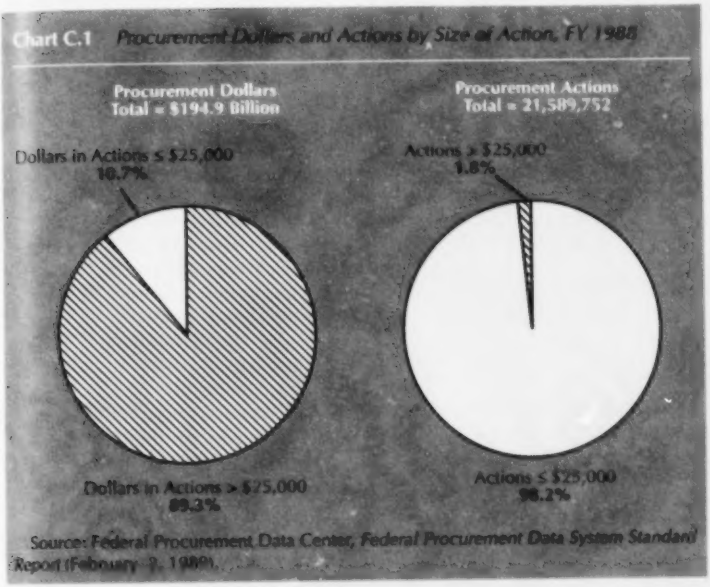


Chart C.1 Procurement Dollars and Actions by Size of Action, FY 1988
Procurement Dollars
Total = $194.9 Billion
Procurement Actions
Total = 21,589,752
Dollars in Actions ≤ $25,000
10.7%
Actions > $25,000
1.8%
Dollars in Actions > $25,000
89.3%
Actions ≤ $25,000
98.2%
Source: Federal Procurement Data Center, Federal Procurement Data System Standard Report (February 2, 1989).

In terms of their share of total dollar awards, small firms are more successful in winning smaller awards than larger contracts. Small businesses were awarded nearly 46 percent of the dollar volume of contract actions under $25,000 (Table C.1). In contrast, they garnered only 14.7 percent of the value of contract actions worth $25,000 or more.[5] Despite these percentage differences, small businesses earned more than two and one-half times as many dollars in larger contract actions over $25,000 than in awards under $25,000. Approximately 75 percent of the total dollar amount awarded to small businesses was in contract actions over $25,000.

[5]The volume of federal contract dollars reported in this section and the percentages reflected in the small business shares are based on data provided by the Federal Procurement Data Center (FPDC) for the use of the Office of Advocacy and are not directly comparable to the small business awards reported by the Small Business Administration's Office of Procurement Assistance (OPA). The Office of Procurement Assistance relies on the individual reports of agencies and departments sent directly to OPA and reports federal contract dollars awarded to business establishments only. The FPDC data utilized by the Office of Advocacy include awards to such organizations as universities, colleges, and nonprofit institutions.

Small Business Procurement Trends

Total dollars awarded by the federal government in contract actions over $25,000 for goods and services have declined each year since the peak year of FY 1985, when nearly $188 billion was awarded (Table C.2).[6] Prior to FY 1985, the value of such purchases had increased steadily each year—at least since FY 1979 when the Federal Procurement Data Center first began reporting procurement data on a regular basis. The dollar value to small business increased from FY 1985 to FY 1986, but has been declining since that time. Since FY 1979, the share of federal procurement going to small firms has fluctuated somewhat, but has remained between 14 and 16 percent over the entire period. In no two successive years has the small business percentage of contracting dollars increased.

Contract Awards by Major Recipient Category

Despite increasing competition from nonprofit organizations for a part of the federal procurement market, the business sector (large and small combined) has steadfastly maintained its market share, accounting for approximately 90 percent of the individually reported contract actions since FY 1980 (Table C.3). Although large firms dominate the picture, with three-fourths of the total dollar value in FY 1988, small businesses have modestly improved their position relative to their larger counterparts by increasing their share from 14.2 percent in FY 1983 to 14.8 percent in FY 1988. Small firms have maintained their share of the federal procurement market compared to educational institutions and other nonprofit groups, whose share decreased from 6 percent in FY 1980 to 4 percent in FY 1987.

Major Purchasing Agencies

The Department of Defense (DOD), the Department of Energy (DOE), and the National Aeronautics and Space Administration (NASA) accounted for more than 90 percent of the contract awards reported on an individual

[6]Contract actions in excess of $25,000 must be reported on an individual basis and, therefore, the reporting detail on such expenditures is high. Conversely, actions of less than $25,000 have no such requirement and are reported only in the aggregate. Unless otherwise stated, the discussions of federal procurement in this and subsequent sections of this report reflect individual awards of $25,000 or more. Starting in FY 1983, the dollar threshold for reporting detailed information on federal procurement actions increased from $10,000 to $25,000 for the Department of Defense. For civilian agencies, a similar change began in FY 1986.

basis in 1988 (Table C.4). Although the DOD remained the largest single source of contract awards, accounting for approximately four of every five dollars of awards over $25,000 made by the federal government, the DOD's percentage of all such awards has decreased steadily during the past four years. Its percentage in FY 1988, 77.5 percent, was the lowest since FY 1981.[7]

Of the three major purchasing agencies or departments, DOD is by far the most important to small business contractors. It accounted for 73 percent ($18.7 billion) of the dollar value of actions over $25,000 awarded to small businesses in FY 1988, compared to 2.7 percent at NASA and 1.9 percent at the DOE.

Small businesses continue to garner a substantial portion of contract awards from the Department of Agriculture (71.9 percent of the department's dollar volume in FY 1988), the Small Business Administration (70.4 percent), the Smithsonian Institution (70.5 percent), and the Peace Corps (70.4 percent). In addition, small firms were able to win between one-quarter and one-half of the contract award dollars in more than a dozen other agencies (Table C.5).

OMB's A-76 Contracting Program

Despite the notable performance of small businesses in winning contracts in the Department of Defense and other major federal purchasing centers, there remain a substantial number of areas within federal procurement where the federal government itself continues to compete with small businesses by producing or providing commercial goods and services with government employees. Delegates to the 1986 White House Conference on Small Business voted direct, government-created competition, along with competition from tax-exempt nonprofit institutions, the number three priority out of the hundreds of issues selected by the delegates to be resolved by their government.

Historically, the United States has always supported a policy that the government should rely on the private sector for obtaining the goods and services it needs. However, it was not until 1955 that this policy was formally established by the Bureau of the Budget, the predecessor agency to the Office of Management and Budget (OMB).[8] This policy was reaffirmed in 1966 with the issu-

[7] Continuing decreases in defense spending and in total federal spending will be apparent in the figures for FY 1989 and 1990.

[8] Bureau of the Budget, Bulletin 55-4, effective January 15, 1955.

ance of OMB Circular A-76, and modified most recently in 1983. Circular A-76 sets forth the guidelines that are to be followed by federal procurement centers in obtaining commercial goods and services from the private sector. It calls for an analysis to be made comparing the costs of performing commercial activities in-house, using federal employees and resources, with the expense of obtaining the products or services from commercial or nonfederal sources.

Studies show that these federal privatization efforts mandated by Circular A-76 have resulted in substantial cost savings and increased efficiency, and that they have encouraged business development.[9] Recent research conducted for the U.S. Small Business Administration's Office of Advocacy indicates that between Fiscal Years 1985 and 1987, the Department of Defense and federal civilian agencies contracted out 793 commercial activities to the private sector.[10] The majority of these contracts (463, or 58 percent) were awarded directly; the remainder (42 percent) were awarded through formal cost comparisons.[11] Through the A-76 contracting program, a minimum of $1.7 billion was channeled to the private sector between FY 1985 and 1987, with $1.5 billion awarded as a result of cost comparison studies and $157 million awarded directly to the private sector. Total known savings for the three-year period was estimated at a minimum of $663 million.

Small firms won 70 percent (552) of the total number

[9]U.S. General Accounting Office, *Federal Productivity: Potential Savings from Private Sector Cost Comparisons*, GAO/GGD-87-30 (Washington, D.C.: U.S. General Accounting Office, December 31, 1986), 10-16. There was considerable variation in the results of the studies due, for the most part, to the different assumptions used in the individual analyses. Annual savings estimates ranged from just under $1 billion to nearly $5 billion. Unfortunately, there was no effort to focus on a small business category in any of the studies reviewed by the GAO.

[10]Ann Parker Maust and Deborah Callahan, *Small Business Participation in A-76 Privatization Initiatives* (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, prepared under award no. SBA-2098-AER-87, August 1989).

[11]Direct contracts, or direct contract conversion, refers to the direct transfer of the performance of a commercial activity from a federal agency to the private sector without a cost comparison study. A formal cost comparison award is preceded by a comparative analysis of the expenses of performing the commercial function inside the agency with expense of contracting the function to a private firm. Where the private sector cost is less than the government performance by at least 10 percent, the activity would automatically be contracted out; if not, the activity remains to be performed by the federal agency for the term.

of A-76 contracts and a minimum of 42 percent ($703.6 million) of the total dollars ($1.7 billion). Small businesses captured slightly more contracts through direct conversions than comparison competitions, but were awarded more of the dollars from contracts successfully won through cost comparison studies. Small firms are known to have won $78.9 million, or one-half of the known direct contract awards and $624.7 million (77 percent) of the awards made through cost comparison competition.

Cost savings attributed to contracting out to small firms were at least $189 million, or 29 percent of the $663 million in known savings estimated for both civilian and military agencies. Thus, small firms have performed well in A-76 contracting in general, certainly far superior to the 14.8 percent recorded by the small firm sector for competitive contract actions of over $25,000 in FY 1988.

Product/Service Categories

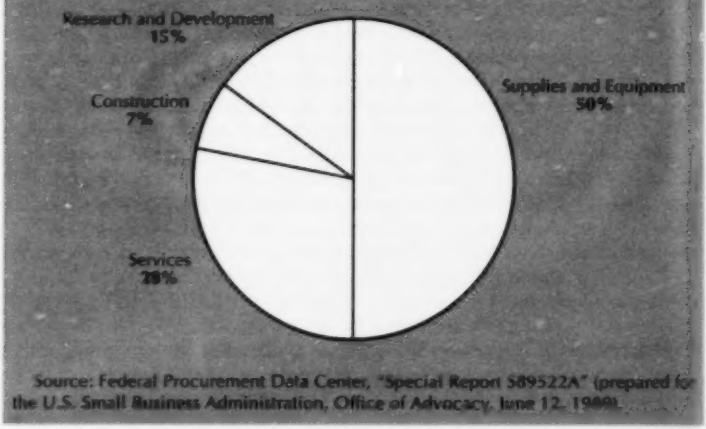
Approximately one-half of all federal procurement dollars are spent for supplies and equipment, compared to 26 percent for services, 15 percent for research and development and 9 percent for construction (Chart C.2). Except for minor shifts, these proportions have not changed appreciably since FY 1979 (Table C. 6). From FY 1979 to FY 1988, research and development and services have slipped as a percentage of total awards, while awards for construction and supplies and equipment have experienced slight increases.

From FY 1979 to FY 1988, the small business sector increased its share of dollar awards in each of the major categories, with the exception of awards for supplies and equipment, where the small firm category experienced a slip in their percentage share from 14.5 percent to 11.4 percent (Table C.7).

Construction

In FY 1988, small firms accounted for one-half of the dollar value of individually reported contracts over $25,000 for construction (Table C.7). Construction includes two basic components: the construction of structures and facilities ($7.4 billion in FY 1988) and the maintenance, repair, and alteration of real property ($4.3 billion) (Table C.8). Small construction firms received 43 percent of the dollar value of the former category of awards in FY 1988 and 70 percent of the latter. The annual change in the value of construction awards to small firms has been erratic in recent years (Table C.9). After sustaining six years of steady growth between FY 1979 and FY 1985, the small business share declined in two of the past three years.

Chart C.2 *Total Contract Actions by Category of Product or Service, FY 1988*



Source: Federal Procurement Data Center, "Special Report S89522A" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 12, 1989).

Services

"Other services" include a variety of nonconstruction activities ranging from technical, sociological, administrative, and other professional services, to the installation, maintenance, and repair of equipment. Small businesses obtained 16 percent of the FY 1988 total award dollars for services (Table C.7) and accounted for more than one-quarter of the dollar value in 11 of the 29 detailed services categories in FY 1988 (Table C.8). Small businesses compete most consistently for awards in the services categories. As shown in Table C.9, small firms experienced annual increases in awards for each year in this category for the past 10 years, except for a slight decline of 1.1 percent from FY 1982 to FY 1983.

Supplies and Equipment

Supplies and equipment contracts are an important source of awards for small firms in federal procurement markets. Although small firms captured only 11.4 percent of the total value of awards for supplies and equipment in FY 1988, the $9.7 billion awarded to them comprised nearly 38 percent of all awards over $25,000 to small businesses during this fiscal year (Table C.7). Small firms were awarded more than one-half of the total value of awards in 19 of the 78 categories which represent the supplies and equipment sector of federal procurement (Table C.8). In the past nine years of competing for

awards for supplies and equipment, small firms have experienced losses in only three of the years, and all have occurred since FY 1984. The small business sector consistently increased its share each year from FY 1979 to FY 1984 (Table C.9).

Research and Development

In FY 1988, small firms were awarded 6.8 percent of federal expenditures on research and development (R&D) in contracts over $25,000. This figure represents the second highest percentage of federal R&D contract dollars awarded to small business in the past seven years (Table C.8). On an annual basis, small business acquisitions of research and development awards has been fairly impressive, experiencing small decreases in only two of the past ten years. The phasing in of the Small Business Innovation Research (SBIR) program in FY 1983 may have provided the impetus for this growth, although it does not explain the slight decrease (1.9 percent) in these types of awards for the FY 1987-FY 1988 period. (SBIR awards are included in the figures for R&D awards that are reported in Table C.8, but the SBIR grants that have been made by certain agencies are excluded.)

Small Business Innovation Research

FY 1988 represents the sixth year of the SBIR program. In this program, agencies with $100 million or more of extramural R&D obligations are required to set aside 1.25 percent of these funds for small business. In the first six years of the program, $1.4 billion was awarded to small firms for a total of 9,229 projects (Table C.10). An average of eight proposals have been received for every new Phase I award.[12] Agencies engaging in SBIR contracts include the Departments of Commerce, Defense, Education, Energy, and Transportation, the Environmental Protection Agency, the National Aeronautics and Space Administration, the Nuclear Regulatory Commission and, initially, the Department of the Interior. SBIR awards are in the form of grants at the Department of Agriculture, the Department of Health and Human Services, and the National Science Foundation, and thus are not included in other tables in this appendix.

[12]In Phase I of the SBIR program, the scientific and technical merit and feasibility of an idea are evaluated. Phase II expands on the results and further pursues the development of Phase I. Phase III commercializes the results of Phase II and requires the use of private or non-SBIR federal funding.

Small Business Performance by State

The volume of federal procurement varies considerably by the state which is the principal location of contract performance (Table C.11). In FY 1988, small businesses accounted for less than 15 percent of federal procurement dollars in six states that were the largest contract recipients: California, Massachusetts, Missouri, New York, Ohio, and Texas. However, small firms accounted for more than 15 percent of the contract dollar volume performed principally in Virginia (ranked second in the Nation), Florida (sixth), and Maryland (eighth).

Subcontracting by Major Purchasing Agencies

Although the small business share of subcontracts fluctuated between FY 1982 and FY 1988, the trend was generally upward. Of the 24 federal agencies and departments presented in Table C.12, 15 showed an increase in the volume of dollars subcontracted to small businesses. As with other federal contracting awards, small firms obtain the largest portion of their subcontracting dollars from the prime contractors working with the major procurement program departments of the Department of Defense ($22.3 billion), the Department of Energy ($2.5 billion), and the National Aeronautics and Space Administration ($1.1) billion.

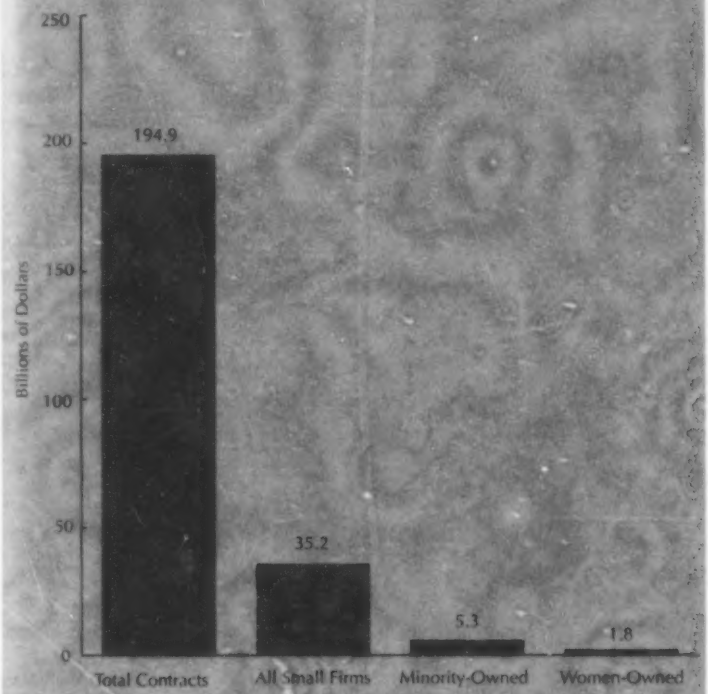
Procurement From Minority and Women-Owned Business

Contract actions awarded to women-owned and minority-owned firms accounted for $1.3 billion and $5.3 billion, respectively, of all federal contracting in FY 1988 (Chart C.3) (Table C.13). Women-owned firms accounted for 0.9 percent of the dollar volume of all federal contracts in FY 1983, while minority-owned firms accounted for 2.7 percent. Small business in general, and women-owned businesses in particular, garner nearly three-fourths of their FY 1988 awards in actions over $25,000. Minority-owned businesses have nearly 99 percent of their total awards in this category.

Based on contract actions over $25,000, the amounts awarded to these two segments of small business over the past year have been positive in the face of overall decreases (Table C.14). While the dollar value of awards decreased by just over 4 percent for the federal government overall, and that for small businesses in general decreased by 8 percent, women-owned firms increased their share by 6 percent and minority-owned businesses by 7 percent.

During the same FY 1987–FY 1988 period, 18 of the 28 largest federal contracting centers exhibited increases in the share of awards to small minority-owned contractors, and 16 of the 28 showed increases in the percentage

Chart C.3 *Federal Contract Actions to Small, Minority-Owned, and Women-Owned Businesses, FY 1988*



Source: Federal Procurement Data Center, "Special Report S89522C" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 12, 1989).

of awards to women-owned enterprises. Small minority-owned firms made noteworthy gains in obtaining awards from the major federal procurement agencies in FY 1988. Minority-owned firms accounted for more than one-third of the prime contract dollars in four of the 28 largest federal purchasing centers in FY 1988, compared to only one agency in the previous year.

Although women-owned firms still had not obtained as much as 8 percent of the dollar value of the total contract actions in any single major procurement center in FY 1988, they made notable gains in obtaining contracts from the Department of Defense ($891.1 million), the

Department of Energy ($38.9 million), the National Aeronautics and Space Administration ($63.7 million), and at least $10 million from 11 other major purchasing centers.

Implementation of the Small Disadvantaged Business Contracting Programs

Section 1207 of P.L. 99-661 established a goal of awarding 5 percent of the dollar value of all Department of Defense procurement to small firms owned and controlled by socially and economically disadvantaged individuals, historically black colleges and universities, and other minority institutions. As a first step toward implementation, DOD published an interim rule, effective June 1, 1987, establishing a new set-aside program for "small disadvantaged business" (SDB) concerns. Contracting officers were to set aside all acquisitions of more than $25,000 for exclusive SDB participation whenever there was a reasonable expectation that two or more capable SDBs would offer the needed goods or services at a price no more than 10 percent above the "fair market price."[11] DOD also announced that it was considering establishing a 10 percent price evaluation preference in favor of SDBs on solicitations which were not set aside for exclusive SDB competition.

Achieving the goal of Section 1207 will require more than doubling the historic SDB share of DOD awards (which includes awards under the Section 8(a) program)—an increase of more than $3 billion annually in overall SDB awards. To counter the possibility that an increase in the SDB share will be at the expense of non-minority small firms, Section 806(b)(7) of the National Defense Authorization Act for FY 1988–1989 (P.L. 100-180) requires the establishment of procedures to ensure that current levels of "traditional" small business set-asides and Section 8(a) opportunities for SDBs are maintained and every effort is made to provide new opportunities for SDBs.

From FY 1981 to FY 1988, defense prime contract awards to all small businesses remained relatively steady at approximately 19 to 20 percent of total procurement dollars, and awards to SDBs rose from 2.1 percent to 2.8 percent (Table C.15). In FY 1989, SDB concerns were awarded approximately $4 billion in prime contract dollars, or about 3.3 percent of the total. Among the defense agencies, the Army and the Defense Logistics Agency

[11] 52 *Federal Register* 16263 (May 4, 1987).

were the closest to meeting the 5-percent goal, while the Navy and Air Force lagged behind (Table C.16).

Comparison of the data for the last four fiscal years suggests a shift of awards away from nonminority small businesses toward SDBs is occurring, even without full implementation of the Section 1207 program. Overall, DOD awards to business firms in FY 1989 dropped by $16.5 billion from the FY 1986 level. During this period of general reduction in defense procurement expenditures, the total small business share dropped from 19.7 percent to 19.0 percent, and small business overall received $4.1 billion less in prime contract awards. Over that same time period, the SDB share grew by $900 million, increasing from 2.3 percent to 3.3 percent of total awards. Thus, while SDB firms received $900 million more in prime contract awards over the four-year period, non-SDB small business firms received $4.1 billion less.

In an attempt to partially address this problem, and in response to the congressional mandate not to displace existing small business market shares while implementing the Section 1207 program, the Department of Defense modified the implementing regulations to provide, among other things, for (1) the use of total SDB set-asides only for goods and services that previously have not been procured successfully under traditional set-asides open to all small businesses, and (2) the establishment of a 10-percent price evaluation preference in favor of SDBs on all unrestricted procurements (but not on "traditional" small business set-asides made under Section 15 of the Small Business Act).[14]

These provisions were designed to lessen the tendency for new SDB procurements to be concentrated in categories where SDBs and other small businesses already compete and where increased SDB procurement would come at the expense of nonminority small businesses. Yet to be addressed is whether this necessary adjustment will have a significant effect in preventing the reallocation of existing market share from small nonminority to minority-owned firms. The section 1207 program should, therefore, not be made permanent nor expanded government wide until these problems are addressed and solved.

[14] 53 *Federal Register* 20626 (June 6, 1988).

Appendix C Tables

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Table C.1 *Federal Contract Actions, FY 1988*

	(Thousands of Dollars)		
	Total	Small Business	Small Business Share (Percent)
Total	194,875,560	35,189,517	18.1
Actions under $25,000 (Reported in Summary Form)	20,777,975	9,515,199	45.8
Actions over $25,000 (Reported Individually)	174,097,585	25,671,318	14.7

Source: Federal Procurement Data Center, *Federal Procurement Data System Standard Report* (Washington, D.C.: U.S. Government Printing Office, February 2, 1989).

Table C.2 *Federal Contract Actions Reported Individually, FY 1979–FY 1988*

Fiscal Year	(Thousands of Dollars) Total	Small Business Actions	Small Business Share (Percent)
1988	174,097,585	25,671,318	14.7
1987	181,538,592	27,927,719	15.4
1986	183,650,227	28,780,092	15.7
1985	187,985,466	26,702,695	14.2
1984	167,933,486	25,606,023	15.2
1983	155,588,106	22,080,024	14.2
1982	152,397,884	23,558,563	15.5
1981	128,864,744	20,068,789	15.6
1980	100,893,385	15,326,121	15.2
1979	88,293,438	14,012,636	15.9

Note: Starting in FY 1983, the dollar threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986.

Source: Federal Procurement Data Center, "Special Report S89522C" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 12, 1989).

Table C.3 *Distribution of Contract Action Dollars in Contracts Reported Individually by Major Recipient Category for Selected Years (Percent)*

Recipient Category	FY 1980	FY 1983	FY 1986
Total	100.0	100.0	100.0
Large Business	74.0	76.4	75.[illegible]
Small Business	15.2	14.1	14.8
Educational Institutions and Nonprofit Groups	6.0	5.0	4.0
State and Local Governments	*	*	1.7
Foreign Recipients	4.8	4.5	4.3

*Data for state and local governments for FY 1980 and FY 1983 are included in the figures for "Educational Institutions and Nonprofit Groups."

Source: Federal Procurement Data Center, *Federal Procurement Data System Standard Report* (Washington, D.C.: U.S. Government Printing Office, February 2, 1989); idem, "Special Report 85462" (prepared for the U.S. Small Business Administration, Office of Advocacy, February 28, 1986).

Table C.4 *Procurement Dollars in Contract Actions Reported Individually by Major Agencies, FY 1979–FY 1988*

Fiscal Year	Total (Billions of Dollars)	Percent of Total			
		DOD	DOE	NASA	Other
1988	174.1	77.5	8.3	4.8	9.4
1987	181.5	78.6	7.7	4.2	9.5
1986	183.7	79.6	7.3	4.0	9.1
1985	188.0	80.1	7.7	4.0	8.2
1984	167.9	79.3	7.8	3.9	9.0
1983	155.6	79.2	8.3	4.0	8.5
1982	152.4	80.0	9.1	3.5	7.4
1981	128.9	75.4	9.1	3.7	11.8
1980	100.9	75.7	8.4	4.3	11.6
1979	86.3	72.7	10.4	4.2	12.7

Note: Starting in FY 1983, the dollar threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986. Figures for FY 1985 have been revised and thus may differ from those previously reported.

Source: Federal Procurement Data Center, "Special Report 87458A" (prepared for the U.S. Small Business Administration, Office of Advocacy, May 19, 1988).

Table C.5 *Small Business Share of Dollars in Contract Actions Reported Individually by Major Procuring Agency, FY 1980–FY 1988*

	FY 1988 (Thousands of Dollars)		Small Business Share (Percent)							
	Total	Small Business	1988	1987	1986	1985	1984	1983	1982	1981
Total, All Agencies	**174,097,585**	**25,671,318**	**14.7**	**15.4**	**15.7**	**14.2**	**15.2**	**14.2**	**15.5**	**15.6**
Department of Agriculture	2,285,672	1,641,077	71.9	56.3	51.0	51.0	57.3	57.5	61.4	55.7
Department of Commerce	433,555	126,113	29.1	36.6	31.5	24.9	35.6	34.7	42.9	37.7
Department of Defense	134,923,611	18,674,057	13.8	14.7	14.7	13.7	14.1	13.3	15.1	14.8
Department of Education	165,380	25,851	15.6	19.6	21.4	20.1	23.0	20.9	18.5	23.6
Department of Energy	14,443,129	489,651	3.4	3.1	2.9	2.7	2.6	2.3	2.1	3.4
Department of Health and Human Services	983,175	258,646	26.3	25.5	24.8	28.1	28.7	30.1	24.2	23.3
Department of Housing and Urban Development	119,006	59,371	49.9	43.5	42.1	41.1	35.9	48.2	35.7	25.8
Department of the Interior	1,039,425	432,901	41.6	36.8	47.4	47.2	40.8	35.6	38.4	29.4
Department of Justice	612,570	249,046	40.7	34.4	26.5	35.4	31.9	30.0	33.2	28.6
Department of Labor	508,172	88,391	17.4	17.4	11.6	12.7	14.5	20.3	18.5	13.8
Department of State	371,701	98,801	26.6	35.4	26.5	33.9	38.4	28.6	37.4	28.2
Department of Transportation	1,498,596	505,583	33.7	35.1	31.7	26.6	49.5	41.8	52.9	49.2
Department of the Treasury	925,692	167,755	18.1	22.9	25.8	27.6	26.8	29.3	10.6	13.4
Environmental Protection Agency	1,012,406	249,438	24.6	24.6	25.9	24.2	26.9	33.9	37.9	38.9
Equal Employment Opportunity Commission	29,501	4,278	14.5	18.1	10.1	15.6	11.7	9.8	13.0	6.4
Federal Emergency Management Agency	209,717	50,241	24.0	20.2	19.4	15.8	20.3	11.8	18.2	20.8

General Services Administration	2,147,199	764,937	35.6	42.3	39.4	42.0	40.2	42.0	37.7	36.8
International Development Cooperation Agency	458,746	201,187	43.9	28.7	37.4	27.7	23.9	33.0	37.1	32.3
National Aeronautics and Space Administration	8,345,867	689,669	8.3	9.0	8.0	7.5	7.3	7.0	6.8	7.0
National Science Foundation	150,521	9,644	6.4	3.8	2.6	3.3	2.1	2.0	1.4	1.9
Nuclear Regulatory Commission	56,947	20,127	35.3	41.2	39.9	36.2	36.5	26.4	19.9	36.2
Office of Personnel Management	452,587	4,676	43.9	1.2	2.4	17.6	11.8	6.6	6.4	1.9
Peace Corps[1]	13,783	9,702	70.4	58.8	57.1	49.8	50.3	51.1	35.9	48.7
Small Business Administration	18,448	12,987	70.4	53.2	52.3	56.5	63.7	42.1	43.6	46.8
Smithsonian Institution	36,006	25,393	70.5	82.1	60.4	56.1	51.3	43.4	73.2	66.6
Tennessee Valley Authority[2]	623,250	155,708	25.0	31.7	59.2	−9.0[3]	71.1	50.6	46.4	48.8
United States Information Agency	129,476	11,548	8.9	32.6	38.8	33.7	23.5	23.7	29.3	22.3
Veterans Administration	2,037,229	616,972	30.3	33.1	33.8	40.3	31.5	39.5	38.5	43.3

[1]A total of 56 agencies are represented in the total dollars for FY 1988; the 28 organizations listed are those agencies that awarded at least $10 million in contract actions in FY 1988.

[2]Until December 29, 1981, the Peace Corps was a part of Action (not shown in table).

[3]The negative small business figures for the Tennessee Valley Authority in FY 1985 were due to deobligations in multiyear contracts to purchase coal that had fallen in price.

Note: Starting in FY 1983, the dollar threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986.

Source: Federal Procurement Data Center, "Special Report S89522C" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 12, 1989).

Table C.6 *Distribution of Prime Contract Actions Reported Individually, by Major Product or Service Category, FY 1979 and FY 1988 (Percent)*

Product/Service Category	FY 1979	FY 1988
Total	100.0	100.0
Research and Development	15.7	14.5
Construction	6.7	8.6
Services	28.5	26.4
Supplies and Equipment	49.1	50.5

Source: Federal Procurement Data Center, "Special Report S89522A" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 7, 1989).

Table C.7 *Prime Contract Actions Reported Individually and Small Business Share, by Major Product or Service Category: FY 1979 and FY 1988*

Product/Service Category	FY 1979		FY 1988	
	Thousands of Dollars	Small Business Share (Percent)	Thousands of Dollars	Small Business Share (Percent)
Research and Development				
Total	12,789,324		27,378,508	
Small Business	846,295	6.6	1,848,409	6.8
Construction				
Total	7,554,603		11,642,196	
Small Business	3,607,822	47.8	6,149,627	52.8
Other Services				
Total	23,334,336		49,583,537	
Small Business	3,082,955	13.2	7,940,501	16.0
Supplies and Equipment				
Total	44,615,175		85,493,344	
Small Business	6,475,766	14.5	9,732,781	11.4

Source: Federal Procurement Data Center, "Special Report S89522A" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 7, 1989).

Table C.8 *Small Business Share of Contract Actions Reported Individually by Product or Service, FY 1982–FY 1988*

Product or Service	FY 1988 (Thousands of Dollars)		Small Business Share (Percent)						
	Total	Small Business	FY 1988	FY 1987	FY 1986	FY 1985	FY 1984	FY 1983	FY 1982
Total	174,097,585	25,671,318	14.7	15.4	15.7	14.2	15.2	14.2	15.5
Subtotal, Research & Development	27,378,508	1,848,409	6.8	7.0	6.5	5.9	4.9	4.8	4.8
Agriculture	14,650	8,571	58.8	76.6	54.0	9.3	1.9	2.2	21.9
Community Services & Development	1,053	27	2.6	0.6	16.5	0.0	1.2	12.5	20.6
Defense Systems	16,008,521	614,007	3.8	3.9	3.7	3.5	2.9	3.1	2.9
Defense–Other	3,353,817	395,022	11.7	19.9	19.6	19.7	20.2	19.6	15.1
Economic Growth and Productivity	11,284	725	6.4	29.3	23.4	33.7	15.0	34.3	7.2
Education	19,992	5,776	28.9	25.2	14.4	7.1	6.7	14.4	16.4
Energy	729,308	56,844	7.7	7.2	6.1	4.9	3.9	2.9	3.8
Environment	167,658	3,717	37.4	27.8	27.3	29.4	25.3	23.7	23.0
General Science and Technology	252,006	628	26.4	21.4	21.6	18.5	13.2	8.9	10.3
Housing	249	167	67.1	34.1	100.0	0.0	16.22	15.3	129.1
International Affairs & Cooperation	430	0	0.0	0.0	8.8	2.6	0.4	0.0	12.0
Medical	424,138	52,844	12.5	11.9	15.4	15.2	16.8	12.6	12.0
Natural Resources	7,309	3,717	50.9	31.0	38.2	35.4	18.4	19.7	13.3
Social Services	628	628	100.0	—	57.3	18.7	0.0	85.5	100.0
Space	4,507,810	198,456	4.4	4.5	3.8	3.1	2.2	1.8	1.4
Transportation	51,724	29,783	57.6	54.6	59.8	56.5	38.5	38.3	37.0
Mining	5,299	659	12.4	13.1	4.9	64.5	47.0	51.6	45.3
Other Research and Development	1,822,632	152,469	8.4	8.8	7.9	8.2	8.0	6.9	6.8
Subtotal, Construction and Other Services	61,225,733	14,090,128	23.0	22.8	22.4	23.6	23.1	21.8	20.3

Purchase of Structures and Facilities	2,207	318	14.4	0.9	99.2	100.0	90.1	4.6	—
Natural Resources Management	1,269,918	788,329	62.1	31.3	49.8	49.1	51.7	56.9	71.3
Social Services	746,424	22,908	3.1	5.3	3.9	11.0	4.9	11.8	10.2
Quality Control, Testing, and Inspection	517,650	61,834	15.8	21.0	11.6	19.2	15.5	16.7	14.8
Maintenance, Repair, and Rebuilding of Equipment	6,166,010	935,376	15.2	16.3	17.9	17.0	18.9	19.4	15.4
Modification of Equipment	1,664,611	37,289	2.2	2.6	2.0	1.5	2.6	6.5	4.8
Technical Representative Services	647,290	107,050	16.5	11.0	5.9	5.2	6.4	8.4	9.0
Operation of Government-Owned Facilities	16,000,636	206,871	1.3	1.4	1.3	1.3	1.6	1.3	0.7
Installation of Equipment	271,547	42,574	15.7	8.6	14.4	11.7	5.7	9.1	13.7
Salvage Service	114,356	44,720	39.1	37.1	45.6	62.7	60.1	60.5	67.0
Dependent Medicare Service	130,796	64	*	0.0	0.0	1.2	0.0	0.0	0.3
General Health Care Services	147,160	11,477	7.8	12.6	3.2	4.1	2.6	3.6	3.2
Laboratory Testing Services	43,206	5,987	13.9	17.5	30.9	54.0	24.1	25.8	28.1
Nursing and Nursing Home Care	230,239	113,676	49.4	57.7	54.4	57.6	63.5	65.9	66.9
Specialized Medical Services	67,453	30,546	45.3	43.0	46.2	50.5	52.3	50.1	35.2
Other Medical Services	86,050	22,683	26.4	18.8	18.2	29.4	21.0	23.7	19.5
Architect and Engineer Services	2,649,919	609,250	23.0	19.6	25.4	32.6	24.8	24.2	27.9
Automatic Data Processing Services	2,401,522	891,799	37.1	30.7	26.2	22.3	21.9	21.6	20.9
Professional Services	5,386,870	1,164,441	21.6	24.9	24.1	23.1	23.4	18.3	34.0
Special Studies and Analyses	501,509	179,283	35.8	34.4	35.5	36.0	32.1	32.2	29.2
Administrative Support Services	370,962	167,500	45.2	63.2	66.6	67.8	61.0	70.0	99.4
Management Support Services	1,246,682	347,473	27.9	25.9	28.8	26.4	28.1	25.7	17.1
Utilities	2,832,326	69,046	2.4	1.9	1.6	0.9	0.3	0.3	1.2
Housekeeping Services	1,899,816	1,137,489	59.9	61.2	64.3	65.9	72.1	75.4	78.3
Photography, Mapping, Printing, and Publishing Services	206,737	95,668	46.3	48.7	47.8	42.5	35.3	42.3	55.4
Training Services	957,728	108,686	11.4	16.6	15.9	18.6	18.8	19.3	17.5
Transportation and Travel	2,047,067	501,384	24.5	18.1	20.6	21.0	17.5	18.3	8.7
Lease or Rental of Equipment	672,870	100,242	14.9	15.0	13.5	15.4	23.8	21.6	13.2

Table C.8 *Small Business Share of Contract Actions Reported Individually by Product or Service, FY 1982–FY—Continued*

Product or Service	FY 1988 (Thousands of Dollars)		Small Business Share (Percent)						
	Total	Small Business	FY 1988	FY 1987	FY 1986	FY 1985	FY 1984	FY 1983	FY 1982
Lease or Rental of Facilities	303,976	116,544	38.3	57.1	33.8	54.8	66.6	46.0	53.3
Construction of Structures and Facilities	7,390,939	3,175,045	43.0	42.6	44.6	49.0	48.0	40.9	37.4
Maintenance, Repair, and Alteration of Real Property	4,251,257	2,974,582	70.0	64.8	66.8	77.0	69.6	69.5	64.8
Subtotal, Supplies & Equipment	**85,493,344**	**9,732,781**	**11.4**	**15.4**	**15.7**	**11.1**	**13.4**	**12.2**	**15.2**
Weapons	1,526,233	107,820	7.1	17.7	20.1	12.4	18.4	9.4	7.4
Nuclear Ordnance	335,187	2,677	0.8	1.7	9.6	38.7	24.8	33.4	3.5
Fire Control Equipment	1,209,770	77,404	6.4	7.8	6.1	4.3	2.6	2.5	4.6
Ammunition and Explosives	3,108,356	412,634	13.3	12.8	16.8	16.5	16.7	19.1	13.8
Guided Missiles	8,880,339	94,917	1.1	1.4	1.7	1.0	1.6	1.1	1.2
Aircraft and Airframe Structural Parts	11,135,351	171,818	1.5	1.7	1.2	1.1	1.0	0.9	1.0
Aircraft Components and Accessories	2,622,138	213,893	8.2	8.6	6.9	6.1	9.2	5.7	10.9
Aircraft Launching, Landing and Ground Handling Equipment	291,851	161,179	55.2	56.8	50.4	27.7	48.8	44.2	40.9
Space Vehicles	1,526,090	30,941	2.0	3.9	0.3	0.8	1.1	1.4	1.6
Ships, Small Craft, Pontoons, and Floating Docks	8,382,818	138,404	1.7	6.5	3.2	4.5	9.7	2.8	7.1
Ship and Marine Equipment	559,903	74,690	13.3	31.3	38.2	31.0	26.5	24.2	26.4
Railway Equipment	5,499	4,852	88.2	77.7	60.9	27.0	4.0	47.0	9.6
Ground Effect and Motor Vehicles, Trailers and Cycles	3,005,416	172,329	5.7	8.0	8.4	11.9	12.2	12.7	16.0
Tractors	60,559	5,839	9.6	3.8	8.3	30.0	21.7	14.1	61.7

Vehicular Equipment Components	654,381	140,061	21.4	29.4	16.1	22.1	16.4	18.9	13.6
Tires and Tubes	79,869	21,992	27.5	20.7	37.4	13.1	36.7	27.0	34.1
Engines, Turbines and Components	5,567,051	242,135	4.4	5.9	6.7	4.2	6.3	4.0	3.9
Engine Accessories	436,935	47,585	10.9	17.8	16.3	15.7	13.8	14.3	16.3
Mechanical Power Transmission Equipment	84,368	26,953	32.0	31.6	35.3	28.7	31.4	18.5	24.0
Bearings	91,209	11,733	12.9	12.6	14.5	11.7	14.1	11.3	14.3
Woodworking Machinery and Equipment	1,387	1,272	91.7	38.0	71.9	76.8	56.0	79.1	68.9
Metalworking Machinery	141,166	66,226	46.9	48.6	44.7	45.3	34.9	51.9	75.6
Service and Trade Equipment	40,046	18,688	46.7	65.3	66.4	39.9	7.7	30.9	64.4
Special Industrial Machinery	151,972	49,079	32.3	32.4	34.3	16.4	12.3	24.1	4.9
Agricultural Machinery and Equipment	5,286	3,211	61.4	71.0	55.1	60.4	64.6	59.4	60.9
Construction, Mining, and Highway Maintenance Equipment	215,719	58,897	27.3	35.8	21.2	17.8	12.9	18.4	28.2
Materials Handling Equipment	448,240	223,897	50.0	46.8	54.5	41.6	34.4	29.2	25.9
Rope, Cable, Chain, and Fittings	27,485	22,639	82.4	63.2	66.9	56.7	60.8	57.7	61.1
Refrigerating and Air Conditioning and Circulating Equipment	99,401	46,748	47.0	72.4	57.3	60.5	56.3	60.5	50.4
Fire Fighting, Rescue, and Safety Equipment	252,068	93,736	37.2	40.4	65.7	54.2	40.2	57.9	44.9
Pumps and Compressors	150,909	49,483	32.8	39.5	48.1	33.0	21.1	17.5	21.3
Furnace, Steam Plant, and Drying Equipment, and Nuclear Reactors	1,187,380	66,906	5.6	2.8	3.6	1.9	1.9	1.0	1.3
Plumbing, Heating, and Sanitation Equipment	45,417	25,083	55.2	34.3	74.9	71.2	75.3	74.7	74.9
Water Purification and Sewage Treatment Equipment	30,845	11,853	38.4	18.5	73.8	63.6	74.1	40.2	7[illegible].8
Pipe, Tubing, Hose, and Fittings	92,904	51,154	55.1	52.4	43.7	50.1	43.2	1,429.6	38.9
Valves	1,241,156	64,161	31.7	63.1	48.8	43.6	47.3	43.4	46.3

Table C.8 *Small Business Share of Contract Actions Reported Individually by Product or Service, FY 1982–FY 1988*—Continued

Product or Service	FY 1988 (Thousands of Dollars)		Small Business Share (Percent)						
	Total	Small Business	FY 1988	FY 1987	FY 1986	FY 1985	FY 1984	FY 1983	FY 1982
Maintenance and Repair Shop Equipment	696,603	222,090	31.9	26.4	32.1	17.6	15.6	13.4	18.4
Hand Tools	77,579	43,645	56.3	52.2	47.3	62.2	46.4	58.9	53.3
Measuring Tools	11,389	8,469	74.4	58.8	59.4	55.7	77.8	51.1	62.7
Hardware and Abrasives	130,353	63,320	48.6	44.7	43.0	44.7	42.5	41.0	37.8
Prefabricated Structure and Scaffolding	203,925	116,062	56.9	52.7	48.0	32.9	29.1	30.5	27.6
Lumber, Millwork, Plywood, and Veneer	24,419	19,165	78.5	74.1	69.6	63.9	59.7	68.8	76.1
Construction and Building Materials	141,447	63,160	44.7	73.5	71.1	69.4	72.2	62.8	48.7
Communication, Detection, and Coherent Radiation Equipment	8,362,964	662,515	7.9	5.3	6.7	5.2	5.5	5.4	7.1
Electrical/Electronic Equipment Components	1,616,563	299,534	18.5	15.6	21.0	20.1	11.9	13.0	17.6
Fiber Optics Materials, Components, Assemblies, and Accessories	20,160	5,169	25.6	73.2	29.5	23.3	23.3	13.6	37.5
Electric Wire and Power Distribution Equipment	790,825	320,692	40.6	34.6	36.1	38.9	40.1	37.0	34.5
Lighting Fixtures and Lamps	102,726	64,915	63.2	40.7	42.7	53.5	55.6	58.7	52.9
Alarm and Signal Systems	91,685	36,704	40.0	32.7	33.2	27.6	40.2	20.5	32.1
Medical, Dental, and Veterinary Equipment and Supplies	1,145,034	153,451	13.4	15.5	14.7	14.9	17.7	18.4	16.9
Instruments and Laboratory Equipment	1,522,201	322,007	21.2	19.5	20.8	15.9	21.1	19.6	18.0
Photographic Equipment	88,223	23,784	27.0	19.4	16.3	13.5	18.1	29.1	17.2
Chemicals and Chemical Products	97,116	40,684	41.9	40.9	43.6	40.4	50.1	63.9	50.4
Training Aids and Devices	666,759	148,788	22.3	22.2	15.8	10.6	11.2	12.6	14.7

General Purpose ADP (Support) Equipment, Software, and Supplies	3,339,574	796,981	21.3	21.4	24.5	23.3	33.7	21.9	21.0
Furniture	209,378	158,598	38.3	36.2	41.3	39.3	55.2	62.2	91.6
Household and Commercial Furnishings and Appliances	59,428	19,600	33.5	33.5	40.7	43.7	35.8	49.6	45.5
Food Preparation and Serving Equipment	68,485	36,043	52.7	58.1	55.7	53.3	59.6	61.1	85.3
Office Machines and Visible Record Equipment	59,814	21,872	36.4	17.9	18.5	33.4	24.2	31.8	27.6
Office Supplies and Devices	162,436	62,879	38.7	38.2	37.8	40.4	34.3	34.7	30.2
Books, Maps, and Other Publications	199,930	26,131	13.1	14.1	21.7	10.1	45.3	97.0	26.6
Musical Instruments, Phonographs, and Hometype Radios	2,564	1,243	48.8	48.9	67.1	32.0	51.5	53.1	57.9
Recreational and Athletic Equipment	7,647	4,025	52.6	40.4	54.7	53.1	66.9	53.5	52.6
Cleaning Equipment and Supplies	70,730	15,598	22.1	24.1	33.6	30.6	33.3	36.7	24.2
Brushes, Paints, Sealers, and Adhesives	60,535	27,030	42.6	52.3	62.2	49.8	62.0	64.4	58.6
Containers, Packaging, and Packing Supplies	238,502	177,719	74.5	72.5	73.2	74.4	70.7	67.7	80.4
Textiles, Leather, Furs, Apparel, and Shoe Findings, Tents, and Flags	192,101	107,599	56.0	56.8	65.9	60.2	79.1	81.2	57.8
Clothing, Individual Equipment, and Insignia	1,067,994	793,798	74.3	72.3	80.6	83.1	80.4	86.8	84.0
Toiletries	64,577	12,217	18.9	21.3	21.0	18.3	24.0	21.8	14.7
Agricultural Supplies	31,498	13,878	44.2	29.5	45.9	48.7	46.0	36.5	43.8
Live Animals	8,381	4,006	47.8	52.7	54.4	39.8	48.8	69.9	76.9
Subsistence	2,493,290	938,543	38.4	37.5	40.7	40.5	45.0	43.4	46.5
Fuel, Lubricants, Oils, and Waxes	5,109,783	730,064	14.3	28.2	28.2	18.6	30.8	29.3	29.6
Nonmetallic Fabricated Materials	98,389	21,051	21.4	39.6	22.5	26.9	41.1	37.3	39.0
Nonmetallic Crude Materials	1,215	739	60.8	51.7	61.1	54.9	13.8	3.2	59.7
Metal Bars, Sheets, and Shapes	155,331	38,974	25.1	28.5	29.1	30.3	19.0	13.4	26.4

Table C.8 *Small Business Share of Contract Actions Reported Individually by Product or Service, FY 1982–FY 1988*—Continued

Product or Service	FY 1988 (Thousands of Dollars)		Small Business Share (Percent)						
	Total	Small Business	FY 1988	FY 1987	FY 1986	FY 1985	FY 1984	FY 1983	FY 1982
Ores, Minerals, and Their Primary Products	342,339	23,509	6.9	1.4	20.5	1.3	7.7	3.9	36.0
Miscellaneous	2,995,943	182,146	6.1	18.3	14.1	29.9	27.4	19.8	9.0

[1]Less than 0.05 percent.

Note: Because of substantial deobligations of dollars in certain categories over a specified period, the deobligations to small business may actually exceed the dollars awarded in a small business category, resulting in negative dollar awards to small business. Similarly, if an unusually large obligation or award is reported in a small business category at the same time there are substantial deobligations to other performers, the awards to small businesses may exceed the total of such awards for a particular category and the resulting small business "share" may temporarily exceed 100 percent of all such awards.

Source: Federal Procurement Data Center, "Special Report S89522A" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 7, 1989).

Table C.9 *Annual Change in Dollar Volume of Contract Actions Reported Individually, by Major Product or Service Category, FY 1979–FY 1988 (Percent)*

Product/Service Category	Annual Change, Fiscal Year								
	'79–'80	'80–'81	'81–'82	'82–'83	'83–'84	'84–'85	'85–'86	'86–'87	'87–'88
Research and Development									
Total	11.0	17.0	19.9	10.4	10.3	5.3	−0.2	5.0	1.4
Small Business Share	13.2	3.0	−3.2	10.4	13.4	27.5	8.8	13.5	−1.9
Construction									
Total	13.7	11.6	10.4	−0.4	6.8	11.5	−1.6	14.2	−16.9
Small Business Share	0.5	15.0	9.7	20.0	15.7	13.8	−10.6	11.1	−14.4
Other Services									
Total	13.3	25.3	16.8	1.2	6.1	9.3	1.5	9.2	−1.6
Small Business Share	14.4	36.1	12.6	−1.1	8.9	10.5	3.5	12.4	6.2
Supplies and Equipment									
Total	15.8	34.3	19.6	0.8	8.4	15.0	−4.6	−9.5	−5.2
Small Business Share	11.4	40.2	24.9	19.3	19.1	−5.1	21.6	−18.7	−15.5

Source: Based on data provided by the Federal Procurement Data Center, "Special Report S89522A" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 7, 1989).

Table C.10 *Small Business Innovation Research Program, FY 1983–FY 1988*

Fiscal Year	Phase I			Phase II		
	Number of Proposals	Number of Awards	Amount of Awards (Thousands of Dollars)	Number of Proposals	Number of Awards	Amount of Awards (Thousands of Dollars)
Total	70,066	9,229	461,268	6,852	2,862	925,379
1988	17,039	2,013	101,935	1,899	711	284,867
1987	14,723	2,189	109,585	2,390	768	240,883
1986	12,449	1,945	98,494	1,112	564	199,394
1985	9,086	1,397	69,126	765	407	130,003
1984	7,955	999	48,020	559	338	60,422
1983	8,814	686	34,648	127	74	9,810

Note: Phase I evaluates the scientific and technical merit and feasibility of an idea. Phase II expands on the results and further pursues the development of Phase I. Phase III commercializes the results of Phase II and requires the use of private or non-SBIR federal funding. The Phase II awards in FY 1983 were pursuant to predecessor programs that qualified as SBIR funding.

Source: U.S. Small Business Administration, Office of Innovation, Research and Technology, annual reports for FY 1983–FY 1988.

Table C.11 *Small Business Share of Prime Contract Dollars by State of Principal Place of Performance and Major Product or Service Category, FY 1988 (Thousands of Dollars)*

	All Products and Services		Research and Development		Construction		Other Services		Supplies and Equipment	
	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)
Total	**161,896,457**	**15.6**	**27,140,233**	**6.8**	**10,202,585**	**59.6**	**45,515,701**	**17.1**	**79,037,938**	**12.1**
Alabama	2,520,055	29.1	490,450	31.5	464,409	23.1	727,693	29.7	837,303	30.5
Alaska	564,189	42.0	891	6.2	261,981	61.2	245,046	26.5	56,271	20.5
Arizona	3,020,162	11.7	416,852	5.3	313,765	58.9	318,691	25.9	1,970,854	3.2
Arkansas	846,404	24.4	6,278	20.8	136,271	57.5	113,702	29.7	590,153	15.7
California	29,353,177	10.8	9,119,822	4.5	1,212,241	62.4	6,989,771	12.2	12,031,343	9.5
Colorado	3,812,250	10.2	2,180,918	0.9	182,370	72.1	952,329	15.7	496,633	18.0
Connecticut	5,177,743	6.7	396,582	4.8	32,338	88.4	651,231	6.9	4,097,592	6.2
Delaware	302,313	13.7	20,658	35.4	23,523	63.5	50,951	19.2	207,181	4.6
District of Columbia	2,878,548	27.0	198,050	27.9	141,981	69.4	2,208,215	23.8	330,302	29.8
Florida	6,618,817	15.1	918,310	5.5	288,741	85.0	2,071,278	14.0	3,340,488	12.4
Georgia	1,901,948	26.2	113,626	5.4	320,484	65.3	530,509	23.6	937,329	16.8
Hawaii	566,225	48.2	27,360	16.5	232,326	85.6	202,708	32.5	103,831	3.6
Idaho	640,620	22.5	1,901	63.7	40,937	86.5	549,134	16.2	48,648	38.9
Illinois	2,510,098	25.9	183,091	19.3	324,883	42.5	950,478	11.2	1,051,646	35.3
Indiana	1,624,158	11.6	118,091	2.1	43,248	96.8	262,370	21.9	1,200,103	7.3
Iowa	703,455	14.4	135,500	0.2	19,722	97.5	113,289	15.3	434,944	14.9
Kansas	1,096,759	17.7	85,168	0.3	61,483	87.3	530,361	7.4	319,747	24.1

Table C.11 *Small Business Share of Prime Contract Dollars by State of Principal Place of Performance and Major Product or Service Category; FY 1988 (Thousands of Dollars)*—Continued

	All Products and Services		Research and Development		Construction		Other Services		Supplies and Equipment	
	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)	Total	Small Business Share (Percent)
Kentucky	882,771	38.4	5,071	40.0	113,699	81.6	248,606	18.9	315,395	38.1
Louisiana	2,073,447	16.3	172,260	0.4	336,176	50.0	453,972	13.8	1,111,039	9.6
Maine	622,744	13.2	10,116	25.8	50,588	42.9	68,963	14.0	493,072	9.7
Maryland	6,307,299	19.6	1,269,197	14.0	290,918	54.9	2,376,988	22.6	2,370,196	15.2
Massachusetts	2,772,825	9.6	2,440,445	7.2	138,224	63.4	1,122,625	17.3	7,772,825	9.6
Michigan	1,514,704	28.1	168,989	18.0	61,576	81.1	238,986	16.6	1,048,153	26.3
Minnesota	2,260,383	8.7	311,389	1.6	48,803	66.6	220,892	8.7	1,679,299	8.3
Mississippi	2,567,022	8.9	10,427	10.6	193,423	59.7	513,104	13.2	1,850,068	2.3
Missouri	6,381,679	6.7	264,365	0.5	259,367	40.4	1,306,115	6.7	4,551,832	5.2
Montana	147,736	74.8	1,676	72.1	67,350	77.6	46,754	62.6	31,956	87.0
Nebraska	400,012	37.7	7,094	2.8	29,369	95.0	122,631	19.4	240,918	41.1
Nevada	862,160	13.8	−16,274	−23.4	53,855	72.5	783,719	5.6	42,860	75.7
New Hampshire	505,249	13.7	52,190	10.4	23,270	98.7	50,560	30.5	379,229	6.6
New Jersey	3,791,091	18.6	689,388	7.3	199,438	52.8	792,779	21.1	2,109,486	18.0
New Mexico	3,184,539	8.5	188,792	21.9	254,995	43.6	2,601,562	2.4	139,190	39.7
New York	8,972,652	12.8	1,500,095	3.1	592,563	30.3	1,900,482	13.6	4,979,512	13.3
North Carolina	1,608,909	31.4	230,722	6.2	343,502	63.4	323,003	26.4	711,682	26.5
North Dakota	160,066	67.4	1,839	15.8	42,844	91.6	48,912	45.9	66,471	69.0
Ohio	6,319,108	12.4	604,714	10.9	317,401	54.3	1,282,235	15.7	4,114,758	8.4

Oklahoma	858,794	44.1	19,963	56.3	121,369	85.9	308,893	32.6	408,569	39.7
Oregon	1,205,501	68.7	18,993	34.3	132,860	49.7	778,172	90.1	265,476	19.7
Pennsylvania	4,393,746	20.4	781,635	7.2	161,107	67.1	1,030,497	19.9	2,420,507	21.9
Rhode Island	450,504	35.2	40,618	10.8	14,240	146.1	180,181	41.9	215,465	27.0
South Carolina	1,881,909	15.6	21,981	2.2	160,320	74.7	1,493,546	7.5	206,062	30.0
South Dakota	120,475	50.7	11	100.0	39,385	91.6	48,053	23.3	33,026	28.1
Tennessee	2,826,914	15.9	163,769	15.2	195,250	44.4	1,606,438	6.0	861,457	28.1
Texas	10,617,454	13.2	1,269,322	3.8	615,465	61.7	2,643,704	11.3	6,088,963	11.0
Utah	1,591,870	28.4	607,733	1.3	296,913	84.4	241,544	38.9	445,688	22.2
Vermont	144,613	10.7	18,266	4.3	1,151	56.6	17,525	21.7	107,671	9.5
Virginia	12,077,568	18.3	945,199	27.5	469,476	73.3	3,531,563	33.7	7,131,330	5.9
Washington	3,757,232	10.9	836,981	1.3	222,864	64.1	1,398,236	8.5	1,299,151	10.6
West Virginia	332,739	26.7	38,110	1.5	109,924	29.0	96,891	14.9	87,814	47.7
Wisconsin	1,186,802	26.7	48,800	1.1	45,869	98.7	135,196	12.6	956,937	26.5
Wyoming	174,011	48.1	2,463	3.0	98,328	40.5	34,613	24.6	38,607	82.2

Source: Federal Procurement Data Center, "Special Report S89522B" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 1, 1989).

Table C.12 *Subcontracts to Small Business by Agency, FY 1982–FY 1987 (Millions of Dollars)*

	1988	1987	1986	1985	1984	1983	1982
Department of Agriculture	40.1	63.7	41.9	97.0	196.6	105.6	72.4
Department of Commerce	20.1	13.3	17.9	14.0	10.6	13.8	5.4
Department of Defense	22,380.0	21,600.0	20,362.0	20,100.0	17,957.0	15,597.8	13,380.0
Department of Education	4.1	6.9	4.3	NA	4.1	NA	4.0
Department of Energy	2,544.4	2,437.0	2,325.7	2,272.0	1,941.2	1,860.0	1,626.5
Department of Health and Human Services	65.9	79.4	123.7	80.0	69.0	89.2	77.5
Department of Housing and Urban Development	5.9	0.5	4	1.7	0.6	1.2	3.9
Department of the Interior	38.2	70.4	72.7	54.6	52.6	63.2	28.8
Department of Justice	67.8	1.5	6.5	4.0	0.7	0.1	0.1
Department of Labor	56.8	54.1	45.9	46.2	45.7	38.1	36.9
Department of State	3.0	4.1	1.6	1.9	3.3	10.4	3.4
Department of Transportation	95.8	113.1	99.1	98.2	127.3	111.6	146.0
Department of the Treasury	44.4	34.5	19.9	7.2	1.9	2.7	1.5
Environmental Protection Agency	55.0	30.0	39	46.7	31.2	12.1	24.7
Federal Emergency Management Agency	1.4	0.5	3	2.8	0.7	0.5	0.6
General Services Administration	355.4	331.1	276.1	209.8	610.9	977.7	384.9
International Development Cooperation Agency	0.9	1.9	2.5	1.2	2.6	0.9	0.6
National Aeronautic and Space Administration	1,101.2	814.3	781	821.6	835.2	664.9	532.4
National Science Commission	11.5	14.4	18	15.1	12.2	13.9	12.1
Nuclear Regulatory Commission	1.9	1.1	1.2	2.0	1.3	1.9	2.2
Office Of Personnel Management	1.0	NA	NA	NA	NA	NA	NA
Tennessee Valley Authority	12.8	28.9	20	19.3	11.1	9.5	6.9
United States Information Agency	0.5	NA	NA	NA	NA	NA	NA
Veterans Administration	227.8	223.9	83.6	87.6	140.1	169.7	133.9
All Others	0.6	NA	NA	NA	NA	NA	NA

NA = Not available.

Source: U.S. Small Business Administration, Office of Procurement Assistance, *Annual Report to the Congress on Fiscal Year Procurement Preference Program Goals and Accomplishments*, (Washington, D.C.: U.S. Government Printing Office, various years).

Table C.13 *Total Federal Contract Actions to Small, Women-Owned, and Minority-Owned Businesses, FY 1988 (Thousands of Dollars)*

	Total	Actions Over $25,000	$25,000 Or Less
Total	194,875,560	174,097,585	20,777,975
Small Business	35,189,517	25,671,318	9,518,199
Percent of Total	18.1	14.7	45.8
Women-Owned Business	1,751,487	1, 327,724	423,763
Percent of Total	0.9	0.8	2.0
Minority-Owned Business	5,257,085	5,192,506	645,790
Percent of Total	2.7	3.0	3.1

Source: Federal Procurement Data Center, *Federal Procurement Data System Standard Report* (Washington, D.C.: U.S. Government Printing Office, February 2, 1989).

Table C.14 *Federal Contract Actions Reported Individually, Awarded to Small, Women-Owned, and Minority-Owned Businesses, FY 1987 and FY 1988 (Thousands of Dollars)*

	FY 1987	FY 1988	Percent Change FY 1987–FY 1988
Total	181,538,592	174,097,585	−4.1
Small Business	27,927,719	25,671,318	−8.1
Women-Owned Business	1,252,885	1,327,724	6.0
Minority-Owned Business	4,849,125	5,192,506	7.1

Source: Federal Procurement Data Center, "Special Report S89522C" [illegible] for the U.S. Small Business Administration, Office of Advocacy, June 12, 1989).

Table C.15 *Federal Prime Contract Actions Reported Individually to Small, Minority-Owned, and Women-Owned Business, by Selected Departments and Agencies, FY 1988 and FY 1987*

	Contract Actions Over $25,000 (Thousands of Dollars)		Small Business (Percent)		Small Minority-Owned Business (Percent)		Women-Owned Business (Percent)	
	1988	1987	1988	1987	1988	1987	1988	1987
Total	174,097,585	181,538,592	14.7	15.4	3.0	2.7	0.8	0.7
Department of Agriculture	2,283,672	1,722,643	71.9	56.3	8.5	5.7	2.3	2.1
Department of Commerce	433,555	405,124	29.1	36.6	11.6	11.2	3.4	3.9
Department of Defense	134,923,611	142,773,993	13.8	14.7	2.5	2.8	0.7	0.6
Department of Education	165,380	153,677	19.6	19.6	10.8	10.8	3.4	1.1
Department of Energy	14,443,129	14,024,839	3.4	3.1	1.4	1.3	0.3	0.2
Department of Health and Human Services	983,175	978,144	26.1	25.5	10.2	7.4	3.8	2.9
Department of Housing and Urban Development	119,006	103,168	49.9	43.5	37.4	29.6	2.3	0.6
Department of Interior	1,039,425	1,312,111	41.6	36.8	8.9	14.5	2.2	1.0
Department of Justice	612,570	721,153	40.7	34.4	11.6	4.4	6.0	3.1
Department of Labor	508,172	556,025	17.4	17.4	7.7	7.6	4.9	4.7
Department of State	371,701	276,024	26.6	33.8	8.9	10.4	1.8	1.2
Department of Transportation	1,498,598	1,693,799	33.7	35.1	16.0	13.9	1.5	1.8
Department of the Treasury	578,652	621,531	18.1	22.9	6.4	7.1	1.8	2.6
Environmental Protection Agency	1,012,406	1,037,280	24.6	24.6	7.4	6.3	1.3	1.3
Equal Employment Opportunity Commission	29,501	27,339	14.5	18.1	8.5	1.0	0.8	2.7
Federal Emergency Management Agency	209,747	207,185	26.0	20.2	7.3	2.3	0.2	0.1

General Services Administration	2,347,199	1,965,901	35.6	42.3	6.4	5.3	0.9	2.1
International Development Cooperation Agency	458,746	425,731	43.9	28.7	35.7	16.3	1.4	1.8
National Aeronautics and Space Administration	8,143,867	7,619,105	8.3	4.2	3.1	3.3	0.8	0.7
National Science Foundation	150,521	201,275	6.4	3.8	2.0	1.7	2.5	1.0
Nuclear Regulatory Commission	56,947	54,409	35.3	41.2	14.3	18.4	4.0	2.6
Office of Personnel Management	452,587	351,045	1.0	1.2	0.3	*	*	*
Peace Corps	13,783	11,130	70.4	58.8	36.1	34.5	7.9	10.6
Small Business Administration	18,448	21,276	70.4	53.2	34.3	25.2	6.1	6.5
Smithsonian Institute	36,006	38,014	78.5	82.1	11.7	12.9	1.4	1.2
Tennessee Valley Authority	623,250	2,055,647	25.0	21.7	0.2	3.4	0.3	0.4
United States Information Agency	129,476	67,894	8.9	32.8	1.6	4.1	0.6	2.1
Veterans Administration	2,037,229	2,044,724	30.3	33.1	5.3	6.8	1.5	1.5

*Negligible (less than 0.05 percent).

Note: Starting in FY 1983, the dollar threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986.

Source: Federal Procurement Data Center, "Special Report 87458A" (prepared for the U.S. Small Business Administration, Office of Advocacy, May 19, 1988).

Table C.16 *Prime Contract Actions Awarded by the Department of Defense, By 1981–1989 (Billions of Dollars)*

	1989	1988	1987	1986	1985	1984	1983	1982	1981
Total Dollars, All Firms	120.0	130.8	135.3	136.5	139.6	124.9	121.1	102.5	87.2
Small Firm Award Dollars	22.8	25.3	26.6	26.9	26.1	23.8	23.6	20.1	17.8
Percent of Total	19.0	19.3	19.6	19.7	18.7	19.1	18.8	19.7	20.4
Small Disadvantaged Firm Dollars	4.0	3.6	3.3	3.1	2.9	2.7	2.4	2.2	1.9
Percent of Total	3.3	2.8	2.5	2.3	2.1	2.2	2.0	2.1	2.1

Source: Department of Defense, Office of Small and Disadvantaged Business Utilization.

Table C.17 Prime Contract Actions Awarded to Small Disadvantaged Businesses by the Department of Defense, FY 1986–FY 1988 (Millions of Dollars)

	Fiscal Year	Section 8(a) Awards	Other Direct Awards	Total	Goal*	Percent of Goal Achieved
DOD Total	1988	2,162.8	1,468.3	3,631.1	6,540.7	55.5
	1987	2,168.7	1,147.9	3,316.6	6,767.0	49.0
	1986	1,940.9	1,181.3	3,122.2	6,825.0	45.7
Army	1988	819.0	523.8	1,342.8	1,478.9	90.8
	1987	882.7	406.8	1,289.5	1,643.1	78.5
	1986	789.8	401.8	1,191.6	1,651.4	72.4
Navy	1988	676.0	408.0	1,085.0	2,502.7	43.4
	1987	632.1	302.5	934.6	2,447.2	38.2
	1986	575.9	250.7	826.6	2,211.6	37.4
Air Force	1988	552.2	293.4	845.7	1,980.0	42.7
	1987	504.0	223.0	727.0	2,030.8	35.8
	1986	436.1	193.2	629.3	2,086.9	30.2
Defense Logistics Agency	1988	58.7	222.9	281.7	462.2	60.9
	1987	86.9	202.1	289.0	461.6	62.6
	1986	117.4	327.0	444.4	675.2	65.8
Other Defense Agencies	1988	56.8	19.2	75.9	117.4	64.7
	1987	63.0	13.5	76.5	164.4	46.5
	1986	21.7	8.6	30.3	198.9	15.2

*Goal is 5 percent of all prime contract awards to all firms; therefore the goals were: $6,835 million in FY [illegible] (= $136.5 billion × 0.05), $6,767 million in FY 1987 (= $135.3 billion × 0.05), and $6,540.7 million in FY 1988 (= $130.8 billion × 0.05).

Source: Department of Defense, Office of Small and Disadvantaged Business Utilization.

Appendix **D**

Women in Business and the Labor Force

Synopsis

Women made significant progress in business ownership and business receipts over the 1977-1987 period. The increase in businesses owned by women during the 1980s was startling: in 1977, the number of nonfarm sole proprietorships owned by men exceeded that of women by a margin of 3.3 to 1; by 1987, the margin had decreased to 2.1 to 1. In 1977, there were 1.9 million nonfarm sole proprietorships owned by women; by 1987, that number had increased to over 4.4 million. Women's share has increased from 22.6 percent in 1977 to 30.7 percent in 1987.

Women also continue to move into the labor force in great numbers. Between 1963 and 1988, the civilian labor force participation rate for females 16 years and older increased steadily to 56.6 percent in 1988, up 18.3 percentage points from 1963, while declining for males to 76.2 percent in 1988, down 5.2 percentage points from 1963. These trends are expected to continue over the next decade.

Introduction

The number of women-owned businesses has increased significantly over the past decade. This phenomenon is observed in increases in both the number of women-owned businesses and the labor force participation rate of women. This appendix highlights those trends, as well as likely future trends.

Federal Data Sources

Currently, there are three major federal data sources on women-owned businesses. The quinquennial Survey of Women-Owned Businesses, conducted by the Bureau of the Census, is a special survey undertaken as part of the economic censuses. The Bureau of the Census' Characteristics of Business Owners survey for 1982 is an auxiliary survey to the 1982 surveys of women-owned and minority-owned businesses (including blacks, Hispanics, Asian Americans, American Indians, and other minorities). Finally, the Statistics of Income Division of the Internal Revenue Service provides annual gender-specific data on nonfarm sole proprietorships based on tax returns.

Census' *Women-Owned Businesses* publication is an excellent source of data on women-owned firms. Data for this publication are collected every five years, covering the years ending in 2 and 7. The latest data are for 1982; 1987 data are expected to be available in the early 1990s. These data cover a subset of the business population on which information is collected by the Internal Revenue Service. The Census survey reports the number of women-owned businesses and their employment, sales, industry distribution, geographic location, and legal form of ownership. Legal forms of ownership covered are sole proprietorships, partnerships with fewer than 10 partners, and Subchapter S corporations with fewer than 10 shareholders (Table D.1).[1]

The Bureau of the Census also published a report entitled *1982 Characteristics of Business Owners* in 1987. This survey provides data on the characteristics of businesses and their owners. Like the 1982 survey of women-owned businesses, the data in this survey cover a subset of the business population in the Internal Revenue Service's business tax universe. These data also represent sole proprietorships, partnerships with fewer than 10 partners, and Subchapter S corporations with fewer than 10 shareholders. The businesses are arrayed into five ownership categories by demographic group (Hispanics, blacks, other minorities [primarily Asians], women, and nonminority men), by two-digit SIC code, and by geographic location.[2]

This supplemental publication provides researchers with insight into the characteristics of business owners, including initial start-up capital provided by the owner, method of acquisition of the business, hours worked, industry distribution, and number of employees. However, the gender and racial categories lack clear comparability, and no comparisons can be made

[1]The Bureau of the Census is the only federal agency that publishes data on women-owned businesses by legal form of organization. For a detailed description of the data set, see the introduction to *1982 Economic Census of Women-Owned Businesses* WB82-1 (Washington, D.C.: U.S. Government Printing Office, 1986), iii–vi. Most of the other federal data sources used here present information only on nonfarm sole proprietorships. Therefore, it is impossible to measure the economic activity of partnerships and corporations using these data sources.

[2]For a detailed description of the data set, see the introduction to *1982 Characteristics of Business Owners* CBO82-1 (Washington, D.C.: U.S. Government Printing Office, August 1987), iii–vi.

between or among ethnic groups by gender; therefore, data analyses for the purposes of this document are limited.

Finally, the Statistics of Income Division of the IRS has provided the SBA with unpublished data on nonfarm sole proprietorships by gender for 1977 through 1987.[3] These data are extracted from the business tax universe—that is, the number of tax returns (Form 1040, Schedule C) filed for a given survey period. The primary discussion in this paper is based on this source. These nonfarm sole proprietorship data are arrayed by gender, SBA region, major industry, receipt size, and net income.

While the IRS data on nonfarm sole proprietorships are released more frequently than data from the two Census surveys, they are limited in certain respects. The IRS data are disaggregated only by SBA region and by selected industry groups; state information has not been available since 1983 due to limited sample sizes. Another limitation is that the IRS data cover only sole proprietorships; partnerships and corporations are excluded.

SBA-Sponsored Research

The SBA's Office of Advocacy has performed and supported significant research on women-owned businesses. A study, prepared under contract by the JACA Corporation, analyzed women business owners' access to capital.[4] It concluded that established women-owned businesses competed favorably with male-owned firms for credit. The study also revealed that women relied on the same principal sources of equity capital as other business owners, but in different proportions: women depended more on personal savings than men.[5]

A second study, prepared by Dr. Faith Ando, analyzed data from the Bureau of the Census' Characteristics of

[3]For tax year 1982, the SBA did not receive nonfarm sole proprietorship data from the IRS. Therefore, 1982 data represent a weighted average.

[4]Faith Ando, *Access to Capital By Subcategories of Small Business*, report no. PB89-113419/AS (Springfield, Va.: National Technical Information Service, prepared under award no. SBA-6061-OA-82, 1985). Also, some of the findings of this study are summarized in *The State of Small Business: A Report of the President, 1986* (Washington, D.C.: U.S. Government Printing Office), Appendix A.

[5]Ando, *Access to Capital*, 4–18 through 4–21.

Business Owners survey for 1982.[6] The study focused on the women-owned, minority-owned, and veteran-owned sole proprietorships that were included in the Census report. The study revealed that about half of all proprietors surveyed stated that they started or acquired their businesses with less than $5,000, and that gender differences among proprietors' characteristics varied dramatically by ethnicity.

Internal Revenue Service Data

Nonfarm Sole Proprietorships

The increase in businesses owned by women during the 1980s was significant: in 1977, the number of nonfarm sole proprietorships owned by men exceeded the number of women-owned nonfarm sole proprietorships by a margin of 3.3 to 1; by 1987 the margin had decreased to 2.1 to 1. Although there are still fewer nonfarm sole proprietorships owned by women than by men, women's ownership is increasing at a more rapid rate. Specifically, from 1977 to 1987, the number of women-owned nonfarm sole proprietorships increased 13.5 percent annually, on average, compared with the 5.3-percent annual increase reported for nonfarm sole proprietorships owned by men (Table D.2).

In 1977, women-owned nonfarm sole proprietorships represented 22.6 percent of all nonfarm sole proprietorships. As of 1987, women's share had increased to 30.7 percent. The share of nonfarm sole proprietorships owned by men declined during the same period, from 74.3 percent in 1977 to 65.8 percent in 1987 (Table D.3).

Annual increases varied somewhat from year to year, but the trend from 1977 to 1987 was a steady higher rate of increase for women-owned nonfarm sole proprietorships (Chart D.1). For example, between 1977 and 1978, the number of women-owned nonfarm sole proprietorships increased 11.6 percent, compared with a 4-percent increase for nonfarm sole proprietorships owned by men. Except in 1983–1984, percentage increases in women-owned nonfarm sole proprietorships significantly exceeded the increases for men.

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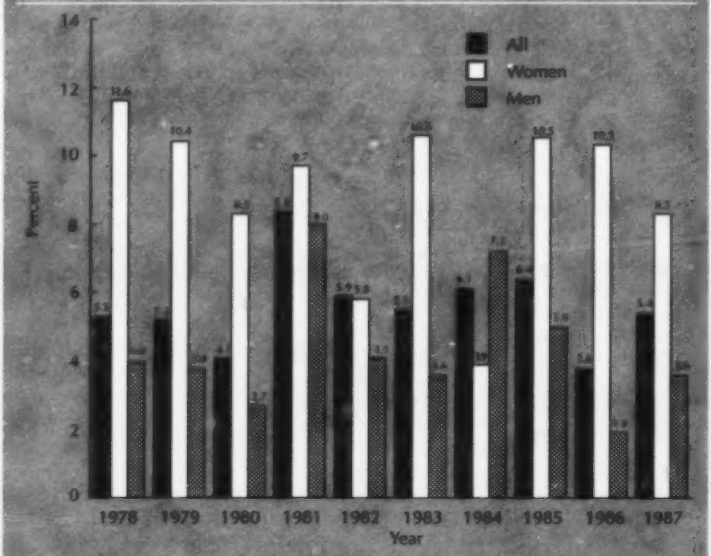
[6]Faith Ando and Associates, Inc., *Minorities, Women, Veterans and the 1982 Characteristics of Business Owners Survey: A Preliminary Analysis*, report no. PB89-115091/AS (Springfield, Va.: National Technical Information Service, prepared under award no. SBA-3026-OA-88, 1989). Also, some of the findings of the Faith Ando study as well as Advocacy's own analyses are summarized in "Women-Owned Businesses," *Small Business in the American Economy* (Washington, D.C.: U.S. Government Printing Office, 1988), Chapter 4.

Chart D.1 *Annual Changes in the Number of Nonfarm Sole Proprietorships, 1977–1987*



Note: Data represent changes from previous years; for example, 1978 figures represent 1977–1978 change.

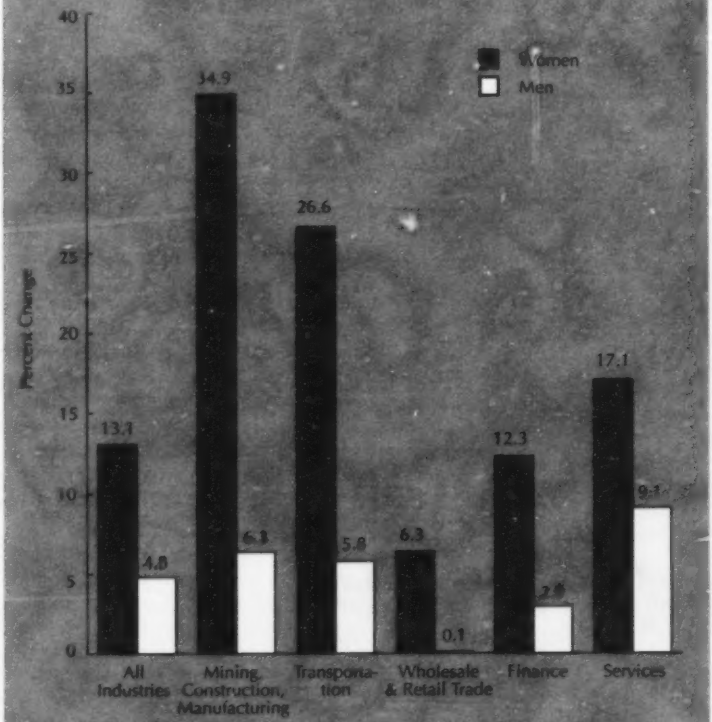
Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy.

Industry Distribution

Between 1977 and 1987, annual percent increases in the number of women-owned nonfarm sole proprietorships by industry far exceeded those nonfarm sole proprietorships owned by men in the same industries. For example, in the mining, construction, and manufacturing industries, the number of women-owned nonfarm sole proprietorships increased at an annual rate of 34.86 percent, significantly higher than the 6.3 percent annual rate experienced by nonfarm sole proprietorships owned by men (Chart D.2).

In absolute terms, growth in the number of women-owned nonfarm sole proprietorships for the period was higher in two major industry categories: services (1.6 million firms), and wholesale and retail trade (405,000 firms). Sole proprietorships owned by men increased by

Chart D.2 *Growth of Nonfarm Sole Proprietorships by Industry, 1977–1987*



Note: 1978 data represent a weighted average.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy.

over 2 million in the service industry and by approximately 3,579 in the wholesale and retail trade industries during that same time period (Table D.4).

Receipts of Nonfarm Sole Proprietorships

From 1977 to 1987, receipts of women-owned nonfarm sole proprietorships grew faster than receipts of nonfarm sole proprietorships owned by men. Women's receipts increased at an annual rate of 8.4 percent in 1982 dollars, in contrast to the 0.2-percent decrease experienced by

nonfarm sole proprietorships owned by men (Table D.5). Women's share increased from 7.8 percent in 1977 to 13.3 percent in 1987 (in 1982 dollars).

Industry Distribution

Receipts of women-owned nonfarm sole proprietorships grew by over $31 billion between 1977 and 1987, compared to a decline of over $8 billion for men. Receipts of women-owned nonfarm sole proprietorships grew faster in traditionally male-dominated industries, such as the transportation, communications, and public utilities industry, and in the finance, insurance, and real estate industry. In transportation, the increase for women-owned nonfarm sole proprietorships was over $1.8 billion compared to an $856-million increase for men, while in the finance, insurance, and real estate industry, women increased receipts by over $4.1 billion, compared to a $3.7-billion increase for men (Table D.6).

In the mining, construction, and manufacturing industries, receipts of women-owned nonfarm sole proprietorships increased by over $3.1 billion, while men's receipts increased by over $3.3 billion. In retail and wholesale trade, growth in receipts of women-owned nonfarm sole proprietorships continues to outpace the growth in receipts of their male-owned counterparts.

Receipts Per Proprietorship

Although receipts per proprietorship declined for both women and men over the past decade, women appeared to be narrowing the sales gap.[7] Between 1977 and 1987, receipts per proprietorship decreased by approximately $4,263, or 21.7 percent, for women proprietors: from $19,681 in 1977 to $15,418 in 1987. However, for men proprietors, receipts decreased even more, from $69,655 in 1977 to $44,697 in 1987, a decrease of 35.8 percent (Table D.7). Between 1986 and 1987, receipts per proprietorship increased by 1.2 and 3.2 percent, respectively, for women and men proprietors.

There is no single explanation for this rapid decline in receipts per proprietorship. The rapid rate of business formation is one explanation, i.e., newly formed businesses are likely to have lower levels of initial receipts. In addition, roughly 13 percent of wage-and-salary workers now participate in some form of business ownership. This type of part-time participation also has an effect on the start-up rate and level of receipts. The increase between

[7]Sales data have been adjusted to 1982 dollars using the GNP deflator.

1986 and 1987 may reflect increases in sales by the more established businesses.

Industry Distribution

The industry distribution of receipts per proprietorship follows the pattern observed above. Between 1977 and 1987, receipts per proprietorship declined in all industries for nonfarm sole proprietorships owned by men. However, in the traditionally male-dominated industry of finance, insurance, and real estate, receipts per proprietorship for women increased slightly, by $113, while declining by $4,237 for men (Table D.8).

Women in the Labor Force

The sustained influx of women into the labor force is a clear indication of their increasing participation in the market economy. Between 1963 and 1988, the civilian labor force participation rate for females 16 years and older increased steadily to 56.6 percent in 1988, up 18.3 percentage points from 1963, while declining for males to 76.2 percent in 1988, down 5.2 percentage points from 1963.

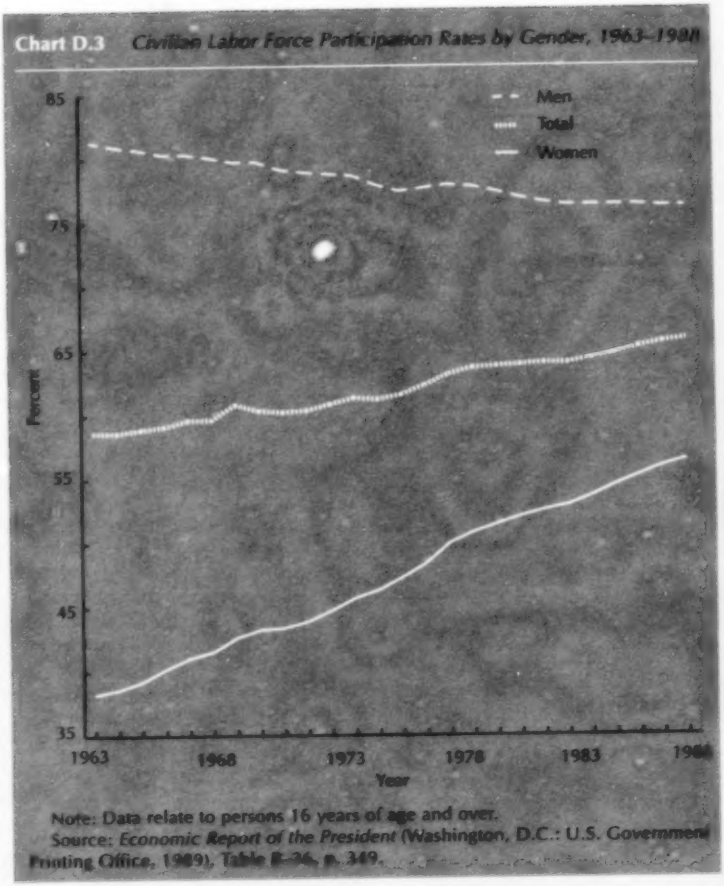
The most pronounced increases of women in the labor market occurred between 1963 and 1978. In 1963, the female labor force participation rate was 38.3 percent; by 1978 that rate had increased to 50 percent and has continued to increase, but at a slower rate since then. For males, the labor force participation rate has actually declined by 0.21 percent annually since 1963. The civilian labor force participation rate for females is projected to approach 61.5 percent by the year 2000, while dropping to under 74.7 percent for males (Table D.9 and Chart D.3).[8]

Female Workers with Children

A significant portion of women with young children are entering or re-entering the labor market. In 1978, 43.7 percent of all female workers with children under 6 years of age were working outside the home. In 1983, just five years later, that figure had increased to over 50 percent. The labor force participation rate of females with children 6 to 17 years old increased from 60 percent in 1978 to 66.3 percent in 1983, to 73.3 percent by 1988 (Chart D.4). Three-quarters of females with children aged 6 and over now work at least part-time.

The reasons why women have decided to return to work vary among families and between individuals. Some

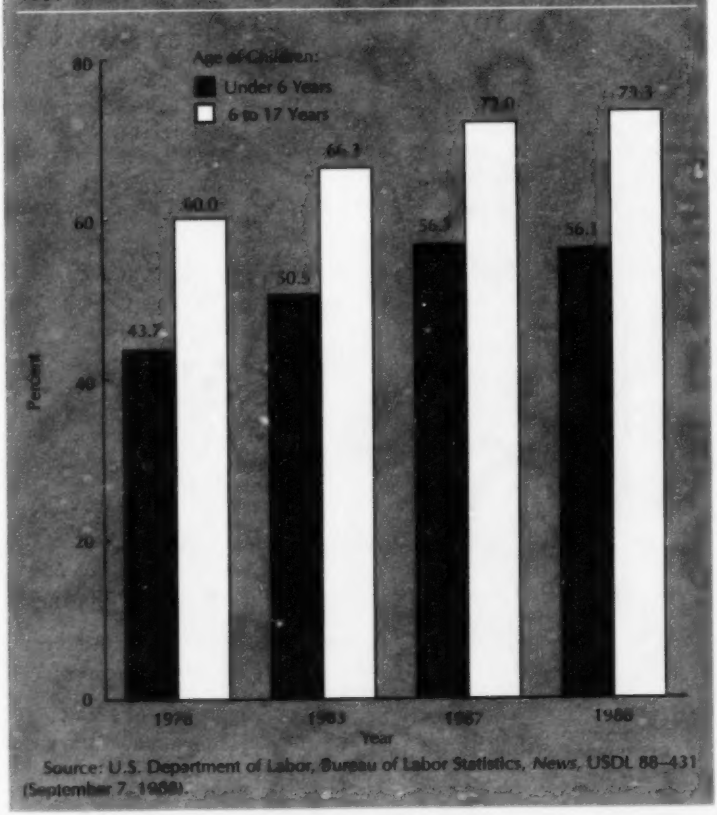
[8]Howard N. Fullerton, Jr., "Labor Force Projections: 1986–2000," *Monthly Labor Review*, 110, no. 9 (September 1987), 19–29.



women have been able to return to work because of technological improvements in homemaking devices. Other women, particularly younger women, are changing their views of the labor market and are making longer term commitments, reflecting in higher educational attainment, including advanced professional degrees.[9] In

[9] "Women in the Labor Force," *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, January 1987), Chapter 7.

Chart D.4 *Labor Force Participation Rate of Women with Children, 1978–1988*



Source: U.S. Department of Labor, Bureau of Labor Statistics, *News*, USDL 88–431 (September 7, 1988).

some instances, this increased education could eventually lead to business ownership, after a period of years as wage-and-salary workers.

Female Self-Employment

The number of nonfarm self-employed females has been increasing annually by over 63,000 workers, or 4.6 percent, since 1963. As of 1988, there were roughly 3 million nonfarm self-employed females, up from 1.3 million in 1963. For males, the annual increase between 1963 and 1988 is less than one-sixth that for females (Table D.10).

In 1963, there were 4.7 million nonfarm self-employed males; as of 1988, there were 5.5 million reported, an annual increase of 0.7 percent (Chart D.5). Women represented 35 percent of all nonfarm self-employed individuals in 1988, up from 22 percent in 1963.[10]

There is some overlap between the terms "self-employed" and "business owner." The fundamental distinction between the two concerns the context in which they are used. Self-employment is a concept used in household surveys to describe a person's labor market status. In principal, all full-time business owners who derive most of their income from their businesses can be considered self-employed. However, statistics published by the Bureau of Labor Statistics on self-employment do not include incorporated self-employed individuals, that is, those business owners whose businesses are organized as corporations. They are considered to be employees of their business. The Internal Revenue Service, on the other hand, includes full-time and part-time, incorporated and unincorporated business owners in its data. The number of nonfarm sole proprietorships reported by the IRS will therefore be higher than the number of self-employed individuals reported by BLS.

Projected Trends

Women-Owned Nonfarm Sole Proprietorships

From the present to the year 2000, the number of women-owned nonfarm sole proprietorships is likely to continue increasing at a slower rate than in the past, but still faster than the number of nonfarm sole proprietorships owned by men. The Office of Advocacy projects that by the year 2000, the share of women-owned nonfarm sole proprietorships will increase to approximately 36.7 percent, up from 30.6 percent in 1987, while the share of nonfarm sole proprietorships owned by men will decline to 58.9 percent.[11]

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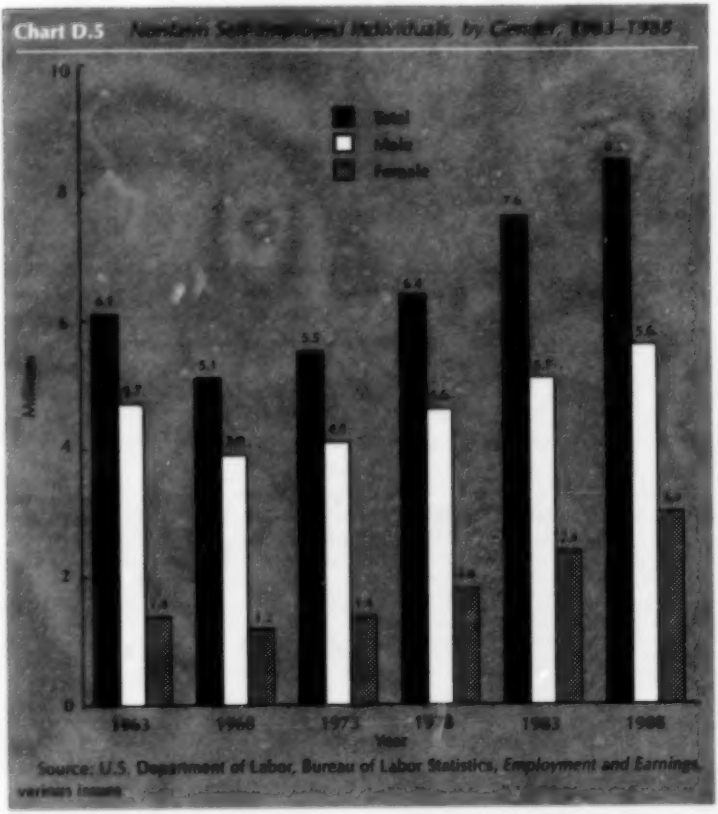
[10]Self-employed individuals are those who described their primary economic activity to be self-employment (as opposed to labor market nonparticipation, unemployment, or employment in the wage-and-salary sector). Partners and sole proprietors are included in self-employment statistics, while incorporated self-employed individuals are excluded. For a more detailed discussion of the concept of self-employment, see "Self-Employment As Small Business" in *The State of Small Business: A Report of the President, 1986* (Washington, D.C.: U.S. Government Printing Office, 1986).

[11]For a detailed description of the methodology and the projection data, see *Share of Women-Owned Businesses: Projections to the Year 2000*, (Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, 1989).



Average receipts for these women-owned firms are likely to increase as well. Moreover, as women gain managerial experience from their wage-and-salary jobs, they will more likely pursue full-time business opportunities, and therefore total business receipts will increase.

Labor Force Participation

As labor shortages become more pronounced by the year 2000, the majority of workers filling the gap will be women, minorities, and older workers.[12] The civilian

[12]William B. Johnston, Hudson Institute, *Workforce 2000, Work and Workers For the 21st Century* (Washington, D.C.: U.S. Government Printing Office, 1987).

labor force participation rate for females is projected to approach 61.5 percent by the year 2000, while dropping to under 74.7 percent for males.[13] The largest segment of women workers will be between the ages of 25 and 54, and their labor force participation rate will increase from 70.8 percent in 1986 to an expected rate of 80.8 percent in the year 2000.[14]

Conclusion

Women-owned businesses have attained an important place alongside businesses owned by men. The growth rate of women-owned businesses—both in number and average receipts size—continues to exceed that for businesses owned by men. Moreover, women can be expected to continue their progress into the labor force and business ownership. Their determination and increasing industrial diversification represent important steps toward economic and personal fulfillment as well as economic growth and strength for the Nation.

[13]Fullerton, "Labor Force Projections: 1986–2000."
[14]Ibid.

Appendix D Tables

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Table D.1 *Number of Women-Owned Businesses by Legal Form of Organization, 1982*

Legal Form of Organization	Number	Percent of Total
All Forms	**2,884,450**	**100.0**
Subchapter S Corporations	89,056	3.1
Sole Proprietorships	2,661,210	92.3
Partnerships	134,184	4.6

Source: U.S. Department of Commerce, Bureau of the Census, *1982 Economic Census of Women-Owned Businesses WB82-1 (Washington, D.C.: U.S. Government Printing Office, 1986).*

Table D.2 *Nonfarm Sole Proprietorships by Gender, 1977–1987*

Year	Women-Owned	All Proprietorships[1]	Men-Owned
1987	4,462,264	14,548,946	9,576,494
1986	4,121,352	13,798,340	9,243,927
1985	3,738,107	13,296,751	9,075,651
1984	3,382,769	12,495,141	8,643,431
1983	3,254,248	11,781,015	8,064,812
1982	2,942,366	11,170,204	7,782,830
1981	2,780,277	10,545,337	7,480,655
1980	2,535,240	9,730,019	6,928,659
1979	2,341,397	9,343,603	6,749,382
1978[2]	2,121,060	8,878,705	6,502,283
1977	1,900,723	8,413,806	6,255,184
Annual Percent Change, 1977–1987	13.5	7.3	5.3

[1] Includes jointly owned nonfarm sole proprietorship businesses. Therefore, women-owned and men-owned nonfarm sole proprietorships will not sum to total.

[2] 1978 data represent a weighted average.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.3 *Share of Nonfarm Sole Proprietorships by Gender, 1977–1987 (Percent)*

Year	Women-Owned	Men-Owned
1987	30.7	65.8
1986	29.9	67.0
1985	28.1	68.3
1984	27.1	69.2
1983	27.6	68.5
1982	26.3	69.7
1981	26.4	70.9
1980	26.1	71.2
1979	25.1	72.2
1978	23.9	73.2
1977	22.6	74.3

Note: 1978 data represent a weighted estimate. Also, row totals do not sum to 100 percent due to the omission of jointly owned nonfarm sole proprietorships.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.4 *Industry Distribution of Nonfarm Sole Proprietorships By Gender, 1977 and 1987*

Industry	1977			1987			Annual Percent Change 1977–1987	
	Total	Women-Owned	Men-Owned	Total	Women-Owned	Men-Owned	Women-Owned	Men-Owned
All Industries	8,413,806	1,900,723	6,255,184	14,159,758	4,391,116	9,273,524	13.10	4.83
Mining, Construction, and Manufacturing	1,289,351	47,661	1,220,132	2,276,538	213,785	1,989,212	34.86	6.30
Transportation	385,322	23,631	352,886	672,770	86,484	555,958	26.60	5.75
Wholesale and Retail Trade	2,264,847	641,086	1,519,525	2,711,071	1,046,364	1,523,104	6.32	0.10
Finance, Insurance, and Real Estate	894,941	225,597	643,660	1,384,701	502,146	831,062	12.26	2.91
Services	3,302,537	936,713	2,284,937	7,114,678	2,542,337	4,374,188	17.14	9.14

Note: 1977 data exclude agriculture; therefore, agriculture has been excluded from 1987.
Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.5 *Receipts of Nonfarm Sole Proprietorships By Gender, 1977–1987 (Thousands of 1982 Dollars)*

Year	Women-Owned	All Proprietorships	Men-Owned
1987	68,797,773	518,965,788	428,036,229
1986	62,821,019	486,129,554	400,392,314
1985	58,652,090	486,966,123	406,085,701
1984	52,060,662	479,142,938	404,816,564
1983	50,657,273	442,186,176	368,432,032
1982	41,717,148	423,664,897	373,090,664
1981	42,107,326	454,322,399	402,768,873
1980	42,446,406	479,819,968	428,815,148
1979	43,424,406	503,396,430	452,318,481
1978	41,071,334	498,727,542	449,274,848
1977	37,407,923	482,158,952	435,706,618
Annual Percent Change, 1977–1987	8.4	0.8	-0.2

Note: 1978 data represent a weighted average. Data have been adjusted to 1982 dollars using GNP deflator.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.6 *Receipts of Nonfarm Sole Proprietorships by Gender and by Major Industry, 1977 and 1987 (Thousands of 1982 Dollars)*

Industry	1977			1987			Annual Percent Change: 1977–87		
	Total	Women-Owned	Men-Owned	Total	Women-Owned	Men-Owned	Total	Women-Owned	Men-Owned
All Industries	**482,158,952**	**37,407,923**	**435,706,618**	**506,417,185**	**67,191,243**	**418,326,102**	**0.50**	**7.96**	**−0.40**
Mining, Construction, and Manufacturing	85,234,117	1,676,508	82,673,490	94,135,159	4,849,052	86,042,261	1.04	18.92	.41
Transportation	20,623,177	954,648	19,266,227	23,478,590	2,854,214	20,122,952	1.87	19.90	0.44
Wholesale and Retail Trade	238,476,138	9,872,759	213,401,230	177,826,079	22,043,155	146,129,555	−2.54	1.09	−3.15
Finance, Insurance, and Real Estate	28,707,588	3,354,421	24,821,707	37,584,902	7,523,303	28,527,297	3.09	12.43	1.49
Services	100,729,633	11,240,143	87,601,456	172,392,456	29,921,518	137,504,037	7.11	16.60	5.70

Note: Both 1977 and 1987 data exclude agriculture. Data have been adjusted to 1982 dollars using the GNP deflator.
Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.7 *Receipts Per Nonfarm Sole Proprietorship By Gender of Owner, 1977–1987*

Year	Total	Men-Owned	Women-Owned
198	35,670	44,697	15,418
1986	35,231	43,314	15,243
1985	36,623	44,735	15,690
1984	38,346	46,835	15,390
1983	37,534	45,684	15,567
1982	38,823	47,907	14,178
1981	43,083	53,841	15,145
1980	49,313	61,890	16,743
1979	53,876	67,016	18,546
1978	56,171	69,095	19,364
1977	57,306	69,655	19,681

Note: Data have been adjusted to 1982 dollars using the GNP deflator. Also, 1978 data represent a weighted estimate.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.8 *Receipts Per Nonfarm Sole Proprietorship by Gender of Owner and by Industry, 1977 and 1987 (1982 Dollars)*

Industry	1977			1987			Annual Percent Change 1977–1987		
	All Firms	Women-Owned	Men-Owned	All Firms	Women-Owned	Men-Owned	All Firms	Women-Owned	Men-Owned
All Industries	**57,306**	**19,681**	**69,655**	**35,765**	**15,302**	**45,110**	**−3.76**	**−2.23**	**−3.52**
Mining, Construction, and Manufacturing	66,106	35,176	67,758	41,350	22,682	43,254	−3.74	−3.55	−3.62
Transportation	53,522	40,398	54,596	36,385	33,003	36,195	−3.20	−1.83	−3.37
Wholesale and Retail Trade	105,295	30,999	140,439	65,593	21,066	95,942	−3.77	−3.20	−3.17
Finance, Insurance, and Real Estate	32,078	14,869	38,563	27,143	14,982	34,326	−1.54	0.88	−1.10
Services	30,501	12,008	38,339	24,231	11,769	31,435	−2.06	−0.20	−1.80

Note: 1977 and 1987 data include agriculture. Also, data have been adjusted to 1982 dollars using the GNP deflator.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.9 *Civilian Labor Force Participation Rates for Individuals 16 Years of Age and Older, by Gender, for Selected Years, 1963–1988*

Year	Total	Male	Female
1988	65.9	76.2	56.6
1983	64.0	76.4	52.9
1978	63.5	77.9	50.0
1973	60.8	78.8	44.7
1968	59.6	80.1	41.6
1963	58.7	81.4	38.3

Note: Labor force data are published by the U.S. Department of Labor, Bureau of Labor Statistics.

Source: Council of Economic Advisers, *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, January 1989), 349.

Table D.10 *Nonfarm Self-Employed Individuals, 1963–1988 (Thousands)*

Year	Total Workers	Male	Female
1988	8,519	5,564	2,955
1983	7,575	5,136	2,439
1978	6,429	4,614	1,814
1973	5,474	4,055	1,419
1968	5,102	3,870	1,232
1963	6,114	4,743	1,371
Annual Percent Change, 1963–1988	1.6	0.7	4.6

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (Washington, D.C.: U.S. Government Printing Office, various issues).

Table D.11 *Nonfarm Women-Owned Sole Proprietorships by Major Industry, 1980 and 1987*

Industrial Sector	1980			1987			Percent Change, 1980–1987	
	All Nonfarm Businesses, Number	Women-Owned Businesses, Number	Women-Owned Businesses, % of Total	All Nonfarm Businesses, Number	Women-Owned Businesses, Number	Women-Owned Businesses, % of Total	All Nonfarm Businesses, Number	Women-Owned Businesses, Number
Total, All Industries	**9,730,019**	**2,535,240**	**26.1**	**14,548,946**	**4,462,264**	**30.7**	**49.5**	**76.0**
Agriculture, Forestry, and Fishing	307,720	30,811	10.0	389,188	71,148	18.3	26.5	130.9
Mining, Construction, and Manufacturing	1,409,2[illegible]	84,221	6.0	2,276,538	213,785	9.4	61.5	153.8
Transportation, Communications, and Electric Utilities	438,795	27,696	6.3	672,770	86,484	12.9	53.3	212.3
Wholesale and Retail Trade	2,527,084	824,771	32.6	2,711,071	1,046,364	38.6	7.3	26.9
Finance, Insurance, and Real Estate	1,048,966	354,801	33.8	1,384,701	502,146	36.3	32.0	41.5
Services	3,918,168	1,212,940	31.0	7,114,678	2,542,337	35.7	81.6	109.6

Note: Detail may not add to totals due to disclosure rules regarding the release of taxpayer information.
Source: U.S. Department of the Treasury, Internal Revenue Service, "Sole Proprietorship Businesses: Business Receipts and Net Income, By Sex of Proprietor, Major Industry, and By Region, Tax Year 1980," and idem, "Tax Year 1987," (special tabulations, Table K-3, prepared under contract for the U.S. Small Business Administration, Office of Advocacy, unpublished data, October 1989).

Table D.12 *Nonfarm Women-Owned Sole Proprietorships by SBA Region, 1980 and 1987*

Region	1980			1987			Percent Change, 1980–1987	
	All Nonfarm Businesses	Women-Owned Businesses	Women's Share of Total	All Nonfarm Businesses	Women-Owned Businesses	Women's Share of Total	All Nonfarm Businesses	Women-Owned Businesses
U.S. Total	9,730,019	2,535,240	26.1	14,548,946	4,462,264	30.7	49.5	76.0
Region I	512,401	120,273	23.5	811,723	254,730	31.4	58.4	111.8
Region II	807,319	195,756	24.2	1,249,547	390,331	31.2	54.8	99.4
Region III	866,848	231,216	26.7	1,312,206	430,756	32.8	51.4	86.3
Region IV	1,480,801	370,354	25.0	2,281,144	650,967	28.5	54.0	75.8
Region V	1,774,893	481,945	27.2	2,519,868	810,275	32.2	42.0	68.1

Region VI	1,237,802	277,022	22.4	1,851,291	509,416	27.5	49.6	83.9
Region VII	602,859	166,643	27.6	869,956	279,045	32.1	44.3	67.5
Region VIII	431,948	115,755	26.8	626,682	172,474	27.5	45.1	49.0
Region IX	1,513,668	446,169	29.5	2,406,803	770,224	32.0	59.0	72.6
Region X	484,626	123,924	25.6	619,726	194,046	31.3	27.9	56.6

Note: Detail may not add to totals due to disclosure rules regarding the release of information for specific taxpayers. SBA regional definitions, which correspond to federal regions, are as follows:
Region I: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Region II: New Jersey, New York; Region III: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia; Region IV: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee; Region V: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin; Region VI: Arkansas, Louisiana, New Mexico, Oklahoma, Texas; Region VII: Iowa, Kansas, Missouri, Nebraska; Region VIII: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming; Region IX: Arizona, California, Hawaii, Nevada; and Region X: Alaska, Idaho, Oregon, Washington.

Source: U.S. Department of the Treasury, Internal Revenue Service, "Sole Proprietorship Businesses: Business Receipts and Net Income, By Sex of Proprietor, Major Industry, and By Region, Tax Year 1980," and idem, "Tax Year 1987," (special tabulations, Table K-3, prepared under contract for the U.S. Small Business Administration, Office of Advocacy, unpublished data, October 1989).

Table D.13 *Receipts of Nonfarm Women-Owned Sole Proprietorships by Major Industry, 1980 and 1987 (thousands of 1982 Dollars)*

Industrial Sector	1980			1987			Percent Change, 1980-1987	
	All Nonfarm Businesses Number	Women-Owned Businesses Number	Women-Owned Businesses % of Total	All Nonfarm Businesses Number	Women-Owned Businesses Number	Women-Owned Businesses % of Total	All Nonfarm Businesses	Women-Owned Businesses
Total, All Industries	**479,819,968**	**42,446,406**	**8.8**	**518,965,788**	**68,797,773**	**13.3**	**8.2**	**62.1**
Agriculture, Forestry, and Fishing	7,507,132	273,372	3.6	12,548,602	1,606,530	12.8	67.2	487.7
Mining, Construction, and Manufacturing	83,135,687	2,307,258	2.8	94,135,159	4,649,052	5.2	13.2	110.2

Transportation, Communications, and Electric Utilities	23,296,995	814,637	3.5	24,478,590	2,854,214	11.7	5.1	250.4
Wholesale and Retail Trade	236,037,109	22,097,527	9.4	177,826,079	22,043,155	12.4	−24.7	−0.2
Finance, Insurance, and Real Estate	25,123,417	4,247,860	16.9	37,584,902	7,523,303	20.0	49.6	77.1
Services	104,718,629	12,705,771	12.1	172,392,456	29,921,518	17.4	64.6	135.5

Note: Detail may not add to totals due to disclosure rules regarding the release of taxpayer information. Data have been adjusted to 1982 dollars using GNP deflator.

Source: U.S. Department of the Treasury, Internal Revenue Service, "Sole Proprietorship Businesses: Business Receipts and Net Income, By Sex of Proprietor, Major Industry, and By Region, Tax Year 1980," and idem, "Tax Year 1987," (special tabulations, Table K-3, prepared under contract for the U.S. Small Business Administration, Office of Advocacy, unpublished data, October 1989).

Table D.14 *Receipts of Nonfarm Women-Owned Sole Proprietorships by SBA Region, 1980 and 1987 (Thousands of 1982 Dollars)*

Region	1980			1987			Percent Change, 1980–1987	
	All Nonfarm Business Receipts	Women-Owned Business Receipts	Women's Share of Total Receipts	All Nonfarm Business Receipts	Women-Owned Business Receipts	Women's Share of Total Receipts	All Nonfarm Business Receipts	Women-Owned Business Receipts
U.S., Total	**479,819,968**	**42,446,406**	**8.8**	**518,965,788**	**68,797,773**	**13.3**	**8.2**	**62.1**
Region I	22,631,047	1,775,610	7.8	29,365,482	3,929,109	13.4	29.8	121.3
Region II	36,056,189	3,577,117	9.9	42,478,137	5,465,773	12.9	17.8	52.8
Region III	43,546,312	3,977,730	9.1	51,910,602	7,052,675	13.6	19.2	77.3
Region IV	77,719,050	6,436,140	8.3	80,244,389	9,672,415	12.1	3.2	50.3
Region V	85,713,604	7,541,799	8.8	78,461,370	9,857,030	12.6	−8.5	30.7

Region VI	67,308,448	5,296,233	7.9	62,423,851	7,003,511	11.2	−7.3	32.3
Region VII	31,081,408	2,427,931	7.8	27,910,449	3,329,229	11.9	−10.2	37.1
Region VIII	19,063,137	1,408,040	7.4	19,574,513	1,855,104	9.5	2.7	31.8
Region IX	75,477,793	8,155,249	10.8	102,485,263	17,170,059	16.8	35.8	110.5
Region X	20,797,958	1,783,799	8.6	24,111,732	3,033,068	12.6	15.9	70.0

Note: Detail may not add due to disclosure rules regarding the release of information for specific taxpayers. This information was tabulated by the Internal Revenue Service under contract to the Office of Advocacy of the U.S. Small Business Administration. SBA regional definitions, which correspond to federal regions, are as follows: Region I: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Region II: New Jersey, New York; Region III: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia; Region IV: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee; Region V: Illinois, Indiana, Michigan, Minnesota, Wisconsin; Region VI: Arkansas, Louisiana, New Mexico, Oklahoma, Texas; Region VII: Iowa, Kansas, Missouri, Nebraska; Region VIII: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming; Region IX: Arizona, California, Hawaii, Nevada; and Region X: Alaska, Idaho, Oregon, Washington. Data have been adjusted to 1982 dollars using GNP deflator.

Source: U.S. Department of the Treasury, Internal Revenue Service, "Sole Proprietorship Businesses: Business Receipts and Net Income, By Sex of Proprietor, Major Industry, and By Region, Tax Year 1980," and idem, "Tax Year 1987," special tabulations, Table K-3, prepared under contract for the U.S. Small Business Administration, Office of Advocacy, unpublished data, October 1989).

Table D.15 *Receipts of Nonfarm Sole Proprietorships by Gender, 1977–1987 (Thousands of Current Dollars)*

Year	Women-Owned	All Proprietorships	Men-Owned
1987	80,974,979	610,822,732	503,798,642
1986	71,553,141	553,701,562	456,046,845
1985	65,045,168	540,045,430	450,349,041
1984	56,069,333	516,036,944	435,987,438
1983	52,632,907	459,431,437	382,800,882
1982	41,717,148	433,664,897	373,090,664
1981	39,580,886	427,063,055	378,602,747
1980	36,376,570	411,205,713	367,494,582
1979	34,131,473	395,669,594	355,522,326
1978	29,653,503	360,081,285	324,376,440
1977	25,175,532	324,492,975	293,230,534
Annual Percent Change, 1977–1987	22.2	8.8	7.2

Note: Data for 1978 represent a weighted average.
Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.16 *Receipts Per Nonfarm Sole Proprietorship by Gender of Owner, 1977–1987*

Year	Total	Men	Women
1987	41,984	52,607	18,147
1986	40,128	49,335	17,362
1985	40,615	49,622	17,401
1984	41,299	50,441	16,575
1983	38,998	47,466	16,174
1982	38,823	47,907	14,178
1981	40,498	50,611	14,236
1980	42,262	53,040	14,348
1979	42,347	52,675	14,577
1978	40,556	49,887	13,981
1977	38,567	46,878	13,245

Note: Data for 1978 represent an estimate.

Source: Special tabulations prepared by the U.S. Department of the Treasury, Internal Revenue Service, under contract to the U.S. Small Business Administration, Office of Advocacy, unpublished data, various tabulations.

Table D.17 *Civilian Labor Force Participation Rates for Individuals 16 Years of Age and Older, by Gender, 1963–1988*

Year	Total	Male	Female
1988	65.9	76.2	56.6
1987	65.6	76.2	56.0
1986	65.3	76.3	55.3
1985	64.8	76.3	54.5
1984	64.4	76.4	53.6
1983	64.0	76.4	52.9
1982	64.0	76.6	52.6
1981	63.9	77.0	52.1
1980	63.8	77.4	51.5
1979	64.0	77.8	50.9
1978	63.5	77.9	50.0
1977	62.6	77.7	48.4
1976	61.6	77.5	47.3
1975	61.2	77.9	46.3
1974	61.3	78.7	45.7
1973	60.8	78.8	44.7
1972	60.4	78.9	43.9
1971	60.2	79.1	43.4
1970	60.4	79.7	43.3
1969	60.1	79.8	42.7
1968	59.6	80.1	41.6
1967	59.6	80.4	41.1
1966	59.2	80.4	40.3
1965	58.9	80.7	39.3
1964	58.7	81.0	38.7
1963	58.7	81.4	38.3

Note: Labor force data are published by the U.S. Department of Labor, Bureau of Labor Statistics.

Source: Council of Economic Advisers, *Economic Report of the President* (Washington, D.C.: U.S. Government Printing Office, January 1989), 349.

Table D.18 *Nonfarm Self-Employed Individuals, 1963–1988 (Thousands)*

Year	Total Workers	Male	Female
1988	8,519	5,564	2,955
1987	8,201	5,423	2,778
1986	7,881	5,271	2,610
1985	7,811	5,207	2,603
1984	7,785	5,219	2,566
1983	7,575	5,136	2,439
1982	7,262	4,954	2,309
1981	7,097	4,905	2,192
1980	7,000	4,904	2,097
1979	6,791	4,810	1,982
1978	6,429	4,614	1,814
1977	6,114	4,423	1,692
1976	5,783	4,233	1,549
1975	5,705	4,224	1,480
1974	5,697	4,222	1,475
1973	5,474	4,055	1,419
1972	5,365	3,993	1,372
1971	5,327	3,991	1,337
1970	5,221	3,932	1,289
1969	5,252	3,968	1,284
1968	5,102	3,870	1,232
1967	5,174	3,894	1,280
1966	5,991	4,532	1,459
1965	6,097	4,683	1,414
1964	6,179	4,783	1,397
1963	6,114	4,743	1,371
Annual Percent Change, 1963–1988	1.6	0.7	4.6

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (Washington, D.C.: U.S. Government Printing Office), various issues.

Table D.19 *Share of Nonfarm Sole Proprietorships Projected to the Year 2000 by Gender*

Year	Female-Owned	Male-Owned	Jointly Owned
1977	22.59	74.34	3.07
1978	23.89	73.23	2.88
1979	25.06	72.24	2.71
1980	26.06	71.21	2.74
1981	26.36	70.94	2.70
1982	26.34	69.73	3.94
1983	27.62	68.46	3.92
1984	27.07	69.17	3.75
1985	28.11	68.25	3.63
1986	29.87	66.99	3.14
1987	30.61	65.89	3.50
1988	30.69	65.43	3.62
1989	31.16	64.88	3.66
1990	31.77	64.13	3.71
1991	32.36	63.44	3.75
1992	32.95	62.70	3.78
1993	33.50	62.06	3.82
1994	34.06	61.42	3.86
1995	34.57	60.88	3.89
1996	35.07	60.36	3.93
1997	35.53	59.91	3.96
1998	35.93	59.57	4.00
1999	36.36	59.16	4.03
2000	36.72	58.87	4.06

Note: Data are projected from 1988 forward. Also, 1982 data represent a weighted average due to lack of data availability for tax year 1982.
Source: Adapted by the U.S. Small Business Administration, Office of Advocacy, from the U.S. Department of the Treasury, Internal Revenue Service, unpublished data, 1989.

Glossary

Actions, reported in bulk: federal procurement contract actions of $25,000 or less. Federal agencies are required to report a summary of such actions to the Federal Procurement Data Center each quarter.

Actions, reported individually: federal procurement contract actions over $25,000. Federal agencies are required to file a detailed report, Standard Form 2790, for each of these contract actions with the Federal Procurement Data Center. Prior to FY 1983 for the Department of Defense, and FY 1986 for civilian agencies, the dollar threshold for reporting detailed information on procurement contracts was $10,000.

Bankruptcy: condition in which a business cannot meet its debt obligations and petitions a federal district court for either reorganization of its debts or liquidation of its assets.

Business birth (entry): formation of a new establishment or enterprise; also, the appearance of a new establishment or enterprise in the Small Business Data Base.

Business death (exit): voluntary or involuntary closure of a firm or establishment; the disappearance of an establishment or enterprise from the Small Business Data Base.

Business dissolution: for enumeration purposes, the absence from any current record of a business that was present in the prior time period.

Business failure: the closure of a business causing a loss to at least one creditor.

Business start: for enumeration purposes, a business with a name or similar designation that did not exist in the prior time period; in this report, those new businesses added to the Dun and Bradstreet establishment file of U.S. businesses that have credit ratings.

Capital expenditures: business spending on additional plant, equipment, and inventory.

Code of Federal Regulations: codification of the general and permanent rules of the Federal Government published in the *Federal Register*.

Commerce Business Daily: daily U.S. Department of Commerce publication that contains notices of contract awards above a certain minimum amount (currently $25,000).

Corporation: firm granted a state charter to incorporate, thereby limiting the liability of its owner(s).

Cost-type contract: a contract that provides for payment to the contractor of allowable and reasonable costs plus a profit. Under such an arrangement, there is less financial risk to the contractor.

Debt capital: business financing that normally requires periodic interest payments and repayment of the principal within a specified time.

Effective registration for cash sale: a registration in effect with the Securities and Exchange Commission for the offering of a security for sale to the public.

8(a) program: program, authorized under the Small Business Act, that directs federal contracts to small businesses owned and operated by socially and economically disadvantaged individuals.

Enterprise: aggregation of all establishments owned by a parent company. An enterprise may consist of a single, independent establishment, or it can include subsidiaries or other branch establishments under the same ownership and control.

Equity capital: an investment in exchange for partial business ownership. The investor's financial return comes from dividend payments and from growth in the net worth of a business.

Establishment: a single-location business unit, which may be independent—called a single-establishment enterprise—or owned by a parent enterprise.

Establishment birth: a new business unit. See also business birth.

Fixed-price contract: a contract that provides for a specified price (or, in some cases, an adjustable price) for the supplies or services being procured, usually within a stipulated contract period. Under this type of agreement, maximum risk and responsibility are placed upon the contractor.

Financial intermediary: a financial institution that acts as the intermediary between borrowers and lenders. Banks, savings and loan associations, finance companies, and venture capital companies are major financial intermediaries in the United States.

Full-time workers: generally, full-time workers are those who work a regular schedule of more than 35 hours per week.

Gross national product (GNP): the most comprehensive single measure of aggregate economic output. Represents the market value of the total output of goods and services produced by a nation's economy.

Incorporation: filing of a certificate of incorporation with a state's secretary of state, thereby limiting the business owner's liability.

Indeterminate industry: industry in which the small or large business share of employment or sales falls between 40 and 60 percent of total industry employment.

Informal capital: financing from an informal, unorganized source; includes informal debt capital such as trade credit or loans from friends and relatives and informal equity capital from informal investors.

Initial public offering (IPO): a public offering of securities by a first-time issuer.

Innovation: introduction of a new idea into the marketplace in the form of a new product or service or an improvement in organization or process.

Large-business-dominated industry: industry in which a minimum of 60 percent of employment or sales is in firms with more than 500 workers.

Metropolitan Statistical Area (MSA): a geographic area defined by the Office of Management and Budget as a large population nucleus with at least 50,000 persons, together with adjacent communities that have a high degree of economic and social integration with that nucleus.

Minority-owned businesses: businesses owned by blacks, persons of Spanish or Latin American ancestry, and persons of American Indian or Asian origin or descent.

Partnership: two or more parties who enter into a legal relationship to conduct business for profit. Defined by the Internal Revenue Code as joint ventures, syndicates, groups, pools, and other associations of two or more persons organized for profit that are not specifically classified in the IRS code as corporations or proprietorships.

Prime contract: contract awarded directly by the Federal Government.

Proprietorship: the most common legal form of business ownership; about 85 percent of all small businesses

are proprietorships. The liability of the owner is unlimited in this form of ownership.

Public equity markets: organized markets for trading in equity shares such as common stocks, preferred stocks, and warrants. Includes markets for both regularly traded and non-regularly traded securities.

Public offering: a general solicitation for participation in an investment opportunity. Interstate public offerings are supervised by the Securities and Exchange Commission.

Short-term interest rates: interest rates for short-term borrowing, usually for a term of one year or less.

Size Standard: standard based on the amount of a business' annual gross receipts used to determine eligibility for small business set-aside programs in government procurement.

Small Business Data Base (SBDB): collection of data files on individual firms developed and maintained by the U.S. Small Business Administration. See also USEEM and USELM.

Small Business Innovation Development Act of 1982: federal statute requiring federal agencies with large extramural R&D budgets to allocate a certain percentage of these funds to small R&D firms. The program is designed to stimulate technological innovation and make greater use of small businesses in meeting national innovation needs.

Small Business Innovation Research (SBIR) program: program mandated by the Small Business Innovation Development Act of 1982, requiring federal agencies with $100 million or more of extramural R&D obligations to set aside 1.25 percent of these funds for small business.

Small business investment company (SBIC): privately owned company licensed and funded through the U.S. Small Business Administration and private sector sources to provide equity or debt capital to small business.

Socially and economically disadvantaged: individuals who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group, without regard to their qualities as individuals, and whose ability to compete is impaired because of diminished opportunities to obtain capital and credit.

Sole proprietorship: unincorporated, one-owner business, farm, or professional practice. See also proprietorship.

Standard Industrial Classification (SIC) codes: established by the Federal Government and used to categorize businesses by type of economic activity.

Subcontract: contract between a prime contractor and a subcontractor or between subcontractors to furnish supplies or services for performance of a prime contract or a subcontract.

USEEM: U.S. Establishment and Enterprise Microdata file, a cross-sectional data base containing data on employment, sales, and location, for individual enterprises and establishments with employees that have a Dun and Bradstreet credit rating.

USELM: U.S. Establishment Longitudinal Microdata file, a data base containing longitudinally linked sample microdata on establishments drawn from the U.S. Establishment and Enterprise Microdata (USEEM) file.

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